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Issues in Applied Linguistics

SPECIAL ISSUE

ETHICAL ISSUES FOR APPLYING LINGUISTICS

Jeff Connor-Linton and Carolyn Temple Adger, Guest Editors

MAIN ARTICLES

EXCHANGE

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Editorial

Bucks and Batons

The idea for an issue devoted to the ethical issues faced by applied linguists came in the form of an unsolicited prospectus from the Guest Editors, Carolyn Temple Adger and Jeff Connor-Linton. Their idea seemed worthy, to publish the papers presented at a colloquium from the 1993 annual conference of the American Association of Applied Linguists in Atlanta, Georgia. Given the perspective and purpose of this journal, the editorial committee agreed that such an issue would be an invaluable and practical source for discussion and debate. Eighteen months after Professors Adger and Connor-Linton contacted *IAL* and almost a year after the conference, the result is a diverse collection of case studies in ethics.

Those interested in theoretical or decontextualized discussion of ethics as general philosophical quandary may be disappointed with the papers in this volume. The Guest Editors' "Introduction and Prologue" will acquaint the reader to the individual papers and provide the broad perspective under which each particular work was commissioned. But the overall theme that one gleans from the papers is that ethics is a contextual problem. Due to the breadth of applications of linguistics, generalizeable approaches to ethical problems presents an interesting problem for the discipline as a whole. Could the computational linguist and the aphasiologist find common ground via a discussion of ethical issues? The syntactician and the psychometrician? Answering these questions is not the ambition of the this particular volume, rather, to provide a number of possible contexts with which the field may make inroads to the topic.

Our readership is welcome, as always, to submit comments, questions, and criticism for publication in the form of an exchange

with an author or as a letter to the editor. We would particularly welcome opinion, speculation, and even an answer or two, to some of the comprehensive questions which the Guest Editors raise in their prologue (and which I will not reiterate here; see pp. 169-177). In fact, the attempt was made to begin discussion of these questions in the form of a computer conference.   This *IAL*-sponsored computer conference on the issue of ethical issues for applying linguistics met with only limited success despite considerable interest; the stipulation that active membership be limited to graduate students may have been somewhat responsible for the limitation of the conference's success.   Nevertheless, a forum for continued discussion of the ethical issues in applying linguistic knowledge is an unquestionable desideratum for the discipline—perhaps in the form of a listserve or other medium of electronic exchange. As will become apparent from the following articles, questions of ethical issues are recurrent, often daily, events. Due to the rapidity with which many ethical questions must be addressed, a means for expeditious consultation with the field at large is advisable. In this way not only will individual applied linguists be able to make more informed decisions, the field as a whole could benefit from the emergent codification of standards and conduct. In addition, this forum could provide greater cohesion in our ever-more-diverse field, serving both as an impetus toward conscientiousness and as a safeguard to the individual.

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When this journal was conceived, its hallmark was to be the continued discussion of *IAL*'s published articles and, more generally, of ideas from underrepresented sources in applied linguistics. The Exchange Section of our journal supplies the forum for this discussion, a forum which emphasizes quality of opinion and seeks to reduce the emphasis on academic decorum. As always, all manuscripts, regardless of rhetorical form, are welcome to Exchange.

In this issue we offer an exchange from Cheryl Fantuzzi on issues of connectionism and philosophy of science. Yasuhiro Shirai was joined by Foong-Ha Yap in our last issue "In Defense of Connectionism" (1993), a response based on an earlier exchange

from Fantuzzi (1992). Fantuzzi returns in this issue to ask "Does Conceptualization Equal Explanation in SLA?"

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This issue on ethics in applying linguistics marks my third and last as general editor. I step into a role where I can advise and advertise the journal's continued growth and institutionalization. Taking a journal through to publication is a great source of intellectual stimulation and a frequent challenge. To anyone who has never experienced it, I can recommend no greater source of satisfaction than a publication's completion.

Stepping into positions of leadership are two capable and energetic students from UCLA's Department of TESL & Applied Linguistics who have proposed a term of co-editorship for the journal, Betsy Kreuter and Susan Strauss. Betsy has served for the past year as a member of the editorial committee where her insightful comments have been most practical and appreciated. Susan has very successfully served for a number of years as book review editor. They come to the job with several good ideas and great enthusiasm. Please join me in wishing them great success.

I would like to thank the authors for their participation in the project and hope that they found the experience rewarding. I would also like to thank the Guest Editors for their interest, warmth, accessibility, for their willingness to listen to criticism, most of all for their patience and gentle prodding. These last were most especially appreciated.

December, 1993   Joseph R. Plummer

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Joseph R. Plummer is a graduate student in the Department of TESL & Applied Linguistics at UCLA. His research interests include neurobiology of language, second language acquisition, philosophy of science, and semiotic theory.

Ethical Issues for Applying Linguistics: Introduction and Prologue

Carolyn Temple Adger
University of Maryland at College Park
Jeff Connor-Linton
Georgetown University

As Braj Kachru forcefully argued in his plenary lecture at the 1992 annual meeting of the American Association for Applied Linguistics, public discussion of the ethical issues inherent in the processes and products of applying linguistic knowledge and methods of inquiry is a crucial part of the field's ongoing effort to define itself (Kachru, 1992). In fact, the lack of such formal discussion in the field of applied linguistics is remarkable. Other, related sciences—like anthropology and psychology—regularly devote journal articles and conference sessions to papers on and discussions of ethical questions. This special issue explores a variety of ethical issues which linguists have faced in applying their linguistic knowledge and methods.

FOCUS

At this early stage—in both the definition of the field of applied linguistics and the discussion of the ethics of its conduct—it would be hubristic to try to address *all* the ethical issues relevant to the entire range of applied linguistics. The goals of this issue are first to identify the ethical questions raised by applying linguistics in a sample of the areas of current practice and then to begin to motivate criteria for *how, when, where, why, to whom, for whom,* and *by whom* the application of linguistics is appropriate.

The papers in this volume focus on "top-down" applications—from theory to practice—in which the primary purpose is to inform and/or effect some change in the language-related practices of some individual or group, rather than to elicit data for research or test a linguistic theory. Ethical considerations for *research* have been more frequently discussed in linguistics and related disciplines (Linguistic Society of America, 1992; American Psychological Association, Inc., 1967); how to *use* the fruits of research has received far less attention, at least in print.

A code of ethics for the field should not and cannot be constructed without lengthy, considered, and public debate to which all linguists are invited. The papers in this volume open what has been largely a private dialogue (at least in the United States) to public participation (but see, e.g., Cameron, Frazer, Harvey, Rampton, and Richardson, 1992; Labov, 1982; and Shuy, 1986). In a very real sense, we are embarking on preliminary fieldwork; to this end, the contributors have offered stories of their own experience which may serve as an initial body of shared background knowledge—a "database"—for future analysis and discussion (Van Maanen, 1988).

To elicit papers with a coherent topical focus, we asked each author to address the same basic set of ethical questions as they relate to his or her particular area of work. This set was not intended to be exhaustive, but to provide a stimulating frame for the issue's contributions. The general question was this:

- What are the ethical issues for applying linguistics in your particular subfield?

Then we asked a variety of more specific variations on the general question:

- What are the linguist's responsibilities to the users or subjects of the application?
- What does the linguist need to know about the user or target of a linguistic application?
- What are the linguist's obligations to research subjects, *beyond preserving privacy*?
- What market considerations are important to your subfield?
- Should linguistic knowledge be sold? If so, how?
- How can a fair value of an application be determined?
- Is marketing demeaning or discrediting to the field?
- How should applied work be delivered to the user?

- Should or can the linguist have control over further dissemination of the application?
- Is the linguist accountable for subsequent applications? If so, how?
- Is prescriptive application ethical?
- What relevance does the debate over ownership of intellectual property have for applying linguistics?
- What is the proprietary relationship between the "discoverer" of a linguistic construct and someone who devises an application for that construct?
- What kinds of methodological issues arise in applying linguistics?
- How is the tension resolved between the need to deliver a product quickly and the time it takes for tasks like transcription and analysis? Are linguists using any rapid assessment procedures to determine clients' needs? If so, what issues do they raise?
- Where should linguistics be applied?
- To what current situations would the application of linguistic knowledge be useful?
- What opportunities or needs have we missed?

The authors of the papers in this volume address *some* of these questions from their considerable experience in applying linguistics, and they raise additional questions.

This discussion of ethical issues has opened with questions but without definitions—beyond the general understanding that working ethically involves doing the right thing. Charles Stansfield's paper on ethics in language testing offers definitions drawn from psychology. He asserts that ethics encompasses both standards of practice and moral obligations, and that ethical dilemmas often stem from the need to address both. The papers in this volume may help to delineate which concerns are best conceptualized as professional standards and which are principally matters of situated morality. Braj Kachru provides a humbling sense of the complexity and challenge of codifying ethics by reminding us that applied linguistics is practiced around the world and in many cultures, each of which may have its own perspectives on particular ethical questions.

RESPONSIBILITIES TO THE CLIENT

A strong theme running through all of the papers concerns the applied linguist's responsibility to the client. Several writers suggest that creating and maintaining a relationship with the client should be treated as a problematic. Differences between the knowledge and concerns of the linguist and those of the client may call for extended discussion and collaborative project development. Heidi Hamilton describes cooperative, long-term work with speech and language pathologists aimed at achieving linguistically-illuminated understanding of discourse-level considerations in speech and language assessment. She highlights the importance of identifying the different assumptions of the applied linguist and her client—about project goals and about the very nature of language. Heather McCallum-Bayliss reports on a computer application in which collaboration did not precede project design. Important project parameters established without her input, especially computer programs and data base format, presented ethical dilemmas concerning how to balance contract obligations and methodological rigor.

These papers urge the development of working relationships between providers and users of linguistic knowledge in which locally situated ethical issues can become evident. Neither party can presume to know exactly what issues the work will raise. Linguists must bear in mind that, precisely because of their knowledge and training, they initially perceive the client community's needs differently than the client does; hence, the agendas of the linguist and the client cannot be assumed to mesh.

Collaborative preparation is a more promising investment than is one-sided needs assessment by the linguist. As Walt Wolfram observes in his paper on language awareness programs in educational settings, a lack of collaborative preparation could result in non-members imposing their own view of the client community's needs.

The Hamilton and McCallum-Bayliss papers emphasize, as does Wolfram's, the obligation to train clients in application-relevant aspects of linguistics, in order for them to use linguistic applications effectively and adapt them to future needs. McCallum-Bayliss shows that training programs and manuals for users of computer programs relying on linguistic knowledge must convey a

linguistically based rationale which users can refer to when unanticipated questions arise. The speech and language pathologists with whom Hamilton consults sought specific aspects of her linguistic knowledge, but she identified problems and needs other than they had bargained for. Her task then became one of examining with her clients their traditional notions of normal communicative behavior. Responsibility to the client in these cases pertains both to standards and to moral obligation: At a minimum, doing good linguistic work means not delivering an overly simplified product and doing good works through linguistics means offering knowledge as well as an application of that knowledge.

Stansfield cautions, however, that for economic reasons customers may not perceive the need for training in the same way as the contractor does. He recounts experiences with state education agencies which proposed reducing training for language test raters as a cost-cutting step. One state accepted his recommendations concerning cost saving measures, but another pressed him to accept its position or lose its business.

The training which Wolfram describes in his paper on language awareness is a basic dialect curriculum which introduces young people to language variation, gives them practice in the scientific study of language, and shows them that dialect stereotypes are unwarranted. He points out that however much linguists may find such an approach to be a straightforwardly right and desirable "return of linguistic favors" to the community, it is crucial to ascertain and respect the varied socio-political agendas surrounding dialects and education—of clients and linguists.

In discussing the perplexity of responsibility, Ed Finegan's paper also raises a multiple agendas theme. The expert linguistic witness is not obligated to extract "the truth" of the client's case: That is the court's job. The expert witness is obligated to do expert linguistics: As Finegan puts it, "Expert testimony, carefully arrived at and as objectively rendered as possible, will have contributed to the cause of justice, no matter the outcome." In other words, responsibility to the client and a more general moral obligation to serve justice entail attention to standards of practice.

Jeff Connor-Linton's paper on the exploitation of conversation analysis in business telephone calls underscores the decidedly situation-dependent nature of ethics in applying linguistics. Because of our incomplete understanding of language and its use, and especially of its interdependence with myriad

aspects of social context, we cannot fully predict the consequences of our applications. In light of these constraints, what kinds of warnings and guarantees should the linguist offer a client?

A new linguistic humility emerges from examining the practitioner's responsibilities to the client. Dispensing linguistic truths becomes a vacuous enterprise unless there is considerable circumspection in identifying the linguist's responsibilities in a particular context of competing agendas. Change presumes awareness, and developing awareness often requires more time for reflection than an isolated linguistic application can provide (Fullen & Stiegelbauer, 1991). As in the current debate on medical practice, it may be necessary to conceive of linguistic applications as partnerships rather than treatments.

RESPONSIBILITIES TO THE PROFESSION

Applying linguistics is not just something that we *do*; it's something that many of us teach and consideration of ethical issues should be a central part of training in applied linguistics. Arguably, this task is one of the applied linguist's responsibilities to the profession, necessary to the coherent development of the field and the inclusion of multiple perspectives in that development. By the very nature of applied linguistics, this training must go beyond hypothetical, decontextualized discussions in the classroom. Students should be involved, as much as is warranted by their interests and expertise, in *all* aspects of applied linguistic work— from initial dialogue and needs assessment with the client, through proposal development, data collection, analysis, pilot testing, product delivery, and evaluation.

There are obvious pedagogical benefits to the students from such rounded, experiential learning opportunities. A student who is involved in only isolated or peripheral phases of the application (like coding of data) may be led to an over-emphasis on the mechanical aspects of the process and may not fully understand how an application must be tailored to the needs of the client. A student who participates centrally in the process will be forced to confront situated ethical dilemmas which are practically impossible to bring into the classroom in any but the most oversimplified, prescriptive forms. In fact, students may be encouraged to keep journals of their

involvement in linguistic applications which may cumulatively serve as a casebook resource for engaging real ethical issues in the classroom (Shulman, 1991).

In fact, the applied linguist's responsibilities to the client and to the profession can overlap. For example, one way in which responsibilities to the client may be met—especially the need for cooperative, long-term relationships—is by involving graduate students in linguistic applications as part of their training. Students who are involved in this way are more likely to extend the duration and focus of the original project through their own research.

LINGUISTICS IN THE MARKETPLACE

Several papers in this volume address the commercialization of linguistic knowledge. In traditional applied linguistics fields, such as language testing, economic issues center on balancing product design requirements and available funds in building a quality product. Stansfield echoes the multiple agendas theme when he points out that the test designer must consider that language testing is an expensive proposition that competes with other educational priorities. Funding limitations are a familiar constraint on linguistic research and applications alike. Finegan invokes the legal community's tradition of demanding hefty fees when the market will bear them, so that pro bono work can be financed.

The economic constraints and motivations which underlie many of the ethical questions discussed in the papers suggest a metaphor for the present dialogue: Ethical considerations are often perceived as constraints on doing research, but they might be better appreciated as an investment involving both costs *and* benefits. The social reputation and perceived value of applied linguistics and its practitioners depend upon ethical practice. Economically, public funding of linguistic applications, institutional support for linguistics departments and applied linguistics programs, and even referrals of individual applied linguists assume ethical practice. A different but no less important kind of benefit of considering the ethics of applying linguistics is that it may in fact produce interesting new hypotheses and insights of theoretical significance, as Connor-Linton's paper suggests.

CONCLUSIONS

In short, these papers elucidate pressing ethical considerations for applying linguistics which are both moral and methodological. This discourse, advisedly preliminary, already raises fruitful cautions, challenges and opportunities for the field: the locally situated nature of ethical questions, and the need to engage multiple voices (of linguist and client, of expert and novice, of different cultures and world views). Clearly, the conversation has not ended. Of the questions initially posed to the contributors to this volume, some have been more thoroughly discussed than others; all remain open. Thus a pivotal responsibility of much praxis lies in identifying the ethical pressure points in an application where these concerns converge.

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Carolyn Temple Adger is a Faculty Research Associate at the Department of Special Education, University of Maryland, where she directs research on the school language experiences of children who speak African American Vernacular English. She holds a Ph.D. in sociolinguistics from Georgetown University, 1984. Currently, her interests are focused on language in education: cross-cultural communication, language awareness, academic talk, and dialect-fair assessment.

Jeffrey Connor-Linton is an Assistant Professor of Linguistics at Georgetown University. He received his Ph.D. in Linguistics from the University of Southern California in 1989. His research interests include cross-cultural (mis)communication, indexicality, pedagogical uses of discourse analysis, and nonnative writing.

Ethical Considerations for Expert Witnesses in Forensic Linguistics

Edward Finegan
University of Southern California

In connection with an undergraduate course that I teach on linguistics and the law, I recently visited a department of the Los Angeles County Criminal Courts and took a seat in the gallery. Immediately, the bailiff inquired whether I was in the courtroom as a witness and permitted me to remain, disregarding my apparent image as an Irish cop come to testify. The bailiff then returned to his own activities, including playful interaction with a five-year-old boy I presumed to be related to the defendant sitting nearby.

On the witness stand a police officer was answering questions from the prosecutor. The officer testified that the defendant had been arrested after the officer saw him laying a fully loaded semi-automatic handgun on the ground as police arrived in response to a telephone complaint. Following a brief cross examination, the officer stepped down from the witness stand.

At that point the judge announced that a jury from a previous trial in his department had just reached a verdict, so he temporarily dispatched the gun defendant, the gun jury, the prosecutor and defense attorney, summoning in their place an entirely different cast of characters from the previous trial and soliciting the jury's verdict. Unsatisfied with certain technicalities in the finding, however, the judge reinstructed the jury and ordered its members to complete their deliberations.

Meanwhile, noticing his gallery filling up with a group of observers whom he correctly assumed to be students with a mentor, the judge invited us into his chambers. The exchange that followed permitted my students, apropos of what they had witnessed, to ask questions about the challenges of jury instructions, a subject we had

tackled in class, and other matters that had piqued their interest in his courtroom. The judge was informal in his demeanor, engaging and candid in his interaction, and charmingly personal about his law school days and about being a judge.

When the deliberating jury's buzz signaled that the jurors had reached a verdict, all of us returned to the courtroom, only to learn that they had still not followed instructions and needed once again to deliberate. While awaiting the verdict this time, the judge reconvened the case I had originally encountered that afternoon, the case that is the central focus of our discussion here. He summoned the original players—police officer, defendant, prosecutor, defense counsel, and jurors. My students were riveted by the shifting sets and convoluted legal stagings, but neither they nor I anticipated the drama that lay ahead.

In the course of the comings and goings in the courtroom, I had noticed that the defendant in the handgun case was blind, and I surmised, in light of the police officer's soft testimony and the extreme nature of the defendant's handicap, that the jury was unlikely to convict a blind man of what was after all a victimless crime. When I whispered my observation to a few students sitting near me, they expressed initial surprise and then confirmed that the defendant was indeed blind.

With the police officer as its sole witness, the state rested its case, and the defense called as its first witness a young woman whose function was to testify as to the defendant's blindness. She identified herself as the mother of the defendant's child, not the boy playing with the bailiff but another one. In the event, it proved impossible for the defense to lay an acceptable foundation for the testimony of this witness, so the judge excused her and directed the jury to disregard what little she had said and to avoid speculation about those aspects of her testimony she had not been given leave to express. I thought the failure could be of little consequence because, in my view, testimony about the defendant's blindness would have carried proverbial coals to Newcastle.

As its next witness, the defense called the defendant himself. Neatly dressed and courtroom presentable, a young father whose son was playing with the bailiff, the blind man reported that at the time of his arrest he had been standing with a group of friends when the police arrived and that someone fleeing had pushed a gun at him. He said he instinctively grabbed what was pushed at him and laid it down immediately upon realizing what he was holding. I found his

story credible, and so did my students. In fact, on the basis of the defendant's simple and direct account, I wondered why such a case had been brought to trial in a city troubled by widespread crime more serious than this appeared to be.

Under cross examination, the defendant was made to act out his story while standing down from the witness stand.   The badgering manner that the prosecutor used in his interrogation solidified my sympathy for the defendant, and it had a similar effect on my students. We found it distressing to see the prosecutor questioning the witness's manifest blindness eye by eye, and we felt uncomfortable when the prosecutor smirked in our direction following questions he apparently regarded as devasting or answers he regarded as preposterous. Upon an objection by the defense counsel, the judge directed the prosecutor to stop badgering the witness. (Secretly, I cheered.) At this point, once again, the jury deliberating off stage signaled that they had reached a verdict. Noting the late hour, the judge excused the gun jury for the weekend and completed his business with the other jury, whereupon they too were excused.

With the courtroom cleared of both juries, the blind defendant through his attorney now sought to have the judge reconsider an order remanding him to jail for the weekend, an order intended to ensure the defendant's presence at the resumption of trial on Monday morning. Before permitting the defendant to make his appeal, the judge warned that he did not want to hear any lies such as those he had been hearing and had heard during a previous trial in which the same blind defendant stood accused of murder. "But, Your Honor, I beat that rap," quipped the defendant from his table, only to be answered by a sharp retort from the judge: "Because I cut you a lot of slack!" My students and I froze in our seats.

The judge then reprimanded the defendant for being five hours late to court that day, costing the taxpayers thousands of dollars and keeping the jury and alternates waiting impatiently. When he asked, with obvious irritation, what had caused the delay, the defendant explained that he had gone to fetch his five-year-old son from the boy's mother, intending to deliver him to day care before proceeding to court. To this the earlier failed witness interjected from her seat in the gallery that the five-year-old's mother, out of control, had stabbed the defendant in the hand; taking care of the wound caused the delay.   "Wait," said the judge

incredulously to the blind man: "YOU were picking up your son to drop him off at day care? WHO was driving?"

For our purposes here I needn't continue the story, except to report that the judge did remand the defendant and to add a curious detail. As this part of the proceedings wound down, another gallery visitor (possibly himself an assistant district attorney) audibly informed the prosecutor that, though he himself would be unwilling to testify in the matter, he had reason to believe the defendant was at least partly sighted. He reported that they had ridden the elevator together that afternoon and he had observed the defendant finding his way around the courthouse without assistance of any sort.

A vague dizziness engulfed me as a young blind father whom I couldn't believe the state was trying on such little ground was transformed before my eyes into a manipulative thug who deserved to be detained over the weekend and whom I wouldn't trust to give me directions to a gas station. Admittedly, I don't know which view of the defendant (if either) might be accurate. What matters, in any case, is that a lesson can be drawn from these events about the perils of expert witnessing and that lesson is the point of telling the story.

In a trial such as the handgun trial, jurors get to see and hear only part of a story. They do get to see and hear two sides of it, though. Expert witnesses, by contrast, are given access to significantly less of the story, and what they get comes only from the partisan advocates who pay them. If it ever happens at all, it must be extraordinarily rare for experts to know for certain that they are retained by an innocent party. Our Anglo-American legal system is committed to providing defendants a fair trial and, by way of acknowledging everyone's limited knowledge of events, insists on viewing defendants as "innocent until proven guilty." Such a neutral view, though, can prove a challenge for an expert witness to maintain.

In my experience as an expert witness and consultant, a typical involvement begins with a telephone call from an attorney (or prosecutor). The caller is representing (or prosecuting) someone about whom I know nothing at all, and the attorney provides some information about a case nearing a trial date, sometimes naming an expert already identified on the opposing side. The caller typically asks whether hers is the kind of case in which I have expertise and, if so, whether I might be willing to consider serving as an expert.

With an attorney offering a linguist the possibility of serving justice by solving linguistic puzzles and explaining to others how certain complicated aspects of language really work (and offering handsome fees for doing so), it is easy to say, "Send me the material, and I'll have a look." "What's your fax number?" the attorney inquires, or "Where can I have the material messengered?" It seems straightforward enough. From what the caller has said, her client appears to be innocent or, in a civil matter, to have a just cause.

Before the materials arrive, then, I've been supplied a frame in which to view them. I've been told the story. More accurately, I've been told a story and, more accurately still, half a story. In fact, of course, I've heard quite a bit less than half a story and almost certainly one that differs markedly from what the expert on the other side hears. Imagine how different would be the three stories of the defendant laying down the loaded semi-automatic if they were provided to me by the prosecutor, the defense counsel, or the judge (had he been acting as an advocate). In all cases, it is safe to assume, my frame differs from the one the linguist on the other side has been given before he or she agreed to look at the materials, only some of which would be the same as mine.

In typical cases, I examine the material sent by the attorney in order to make an initial assessment as to whether I have expertise and something enlightening to report. Not surprisingly, many times I find that I can be of assistance. "I'm delighted," the attorney says when she learns of my willingness to serve as a consultant or an expert. "I've never worked with a linguist before, and I look forward to working with you; you seem to understand the issues and you sound like an honest person. We're glad to have you aboard." The attorney agrees to send additional material, and we agree to talk in a few days.

Sometimes the material sent contains a report, declaration, or deposition by an opposing expert and, typically, it reveals good sense, makes some telling observations, and highlights some significant findings. In addition, often, it may show logical gaps, have overlooked or misinterpreted critical data, or even be perplexingly wrongheaded in places. Sometimes, the linguist appears to have addressed matters lying beyond what I would regard as linguistic expertise—opining perhaps on matters of typical typewriting habits, or psychological association of ideas, or how people think when they read assembling instructions for pool tables.

(About the complementary judgment that an opposing expert witness might make about reports of mine, I trust it is clear that implicit in my argument is the recognition that sufficient objectivity would certainly cast my own analyses well within the unfavorable generalizations I have just made.)

From the reports and declarations I have read (including several of my own), I recognize how easy it is for linguists serving as expert witnesses to believe that, if justice has any meaning, the party retaining them in a criminal case is in the right or, in a civil case, should prevail. In other words, on the basis of half a story told by a distinctly interested advocate, and in the absence of most information about a counter view, linguists serving as expert witnesses sometimes seem inclined to view themselves as working not *on behalf of justice*, but *on the side of justice*, and *against injustice*. This view, of course, is naive and it risks being unethical.

The safest ethical stance for an expert to take concerning the justness of a party on whose behalf he or she is rendering an expert opinion is one of skepticism. Ethically, experts should remain skeptical of the justness of the side retaining them. Indeed, in an ideal world it would be the court that contacted and retained an expert witness, as Roger Shuy rightly notes in *Language Crimes* (1993), and technically it is for the trier of fact—and not for any party to an action—that an expert renders an opinion. But in practice the frame in which a linguistics expert works is gilded or tarnished by a partisan advocate, who also negotiates the fee and picks up the tab.

I don't want to be misunderstood on this matter. I am not recommending that an expert opinion should itself be skeptical. Rather, I am saying that it is critical for an expert to draw a clear distinction between the matter on which an opinion is solicited and the overall rightness of the cause in which the opinion plays a part. In principle, the job of an expert is to clarify and enlighten specific issues for the trier of fact, and experts must take care not to be drawn unawares into partisan advocacy.

Consider that a contract or insurance policy about whose language an expert renders the opinion that it would be incomprehensible to a person of ordinary intelligence might very well have been understood fully by the party retaining him but keen for self-interested reasons to demonstrate the contract's opacity. Consider that within a contract a clause that an expert can legitimately construe as ambiguous might in fact have been

understood at signing in identical ways by all the signatories. Consider that an incriminatory interpretation of a taped discussion on the basis of which a prosecutor wishes to argue intent to defraud the government or solicit a bribe may be legitimately undermined by an expert on behalf of a defendant who in fact intended to defraud the government or solicit a bribe. Consider that, irrespective of whether or not the interlocutors engaged in a criminal conspiracy, a recorded conversation introduced into a trial and purporting to prove a conspiracy can sometimes legitimately be shown unable to prove a conspiracy. In other words, it is one thing to demonstrate that a particular argument is riddled with holes or a piece of evidence fails to demonstrate what it purports to demonstrate; it is quite another thing to determine the righteousness—the guilt or innocence—of any party's claim.

In our system of justice, it is the duty exclusively of the trier of fact to determine who prevails in a civil cause of action and to reckon guilt or innocence in criminal actions. Deciding who prevails is neither the responsibility nor the prerogative of an expert, who is in a particularly disadvantageous position from which to ascertain the facts and the overall merits of a case. Determining facts is a complicated and challenging process, requiring extensive investigation and costly discovery. Inevitably, juries and judges charged with determining issues of fact have more information than any single expert could have, and they have significantly more knowledge of the facts by trial's end than a partisan advocate could have provided an expert before the start of trial, even assuming an intention to be candid. It is the duty of an expert witness only to render an opinion, typically about a relatively narrow aspect of a case, however important that aspect may be in determining the eventual outcome of the case.

Before a jury reaches its verdict, an expert witness who permits himself to believe that he is working on the side of justice (rather than on its behalf) runs a serious risk of compromising professional expertise within the highly partisan activities of advocacy constituting the American judicial system. Ordinarily, no determination about innocence or righteousness can be justified by the information an expert has access to.

Neither can a linguist, having rendered an expert opinion, take pride in success simply because the jury finds in favor of the client who paid his fee, nor feel he has failed if the jury finds otherwise. Expert testimony, carefully crafted and objectively

rendered, will have advanced the cause of justice, no matter the outcome. For experts to short-circuit the trial process by allowing themselves to believe that they serve a righteous client is to preempt the trier of fact and compromise the cause of justice they are ethically committed to assist.

It is useful for experts to recall that defense attorneys do not often ask clients whether they are guilty or innocent of the charges laid. It's sobering, too, to bear in mind that prosecutors regard successful trials as those that result in convictions, while defense attorneys measure success by acquittals. It probably goes without saying that civil attorneys are determined to prevail for their clients, not only for the sake of financial gain and collegial repute but because they have an obligation to do their very best; however, it bears underscoring that doing the best for a client may entail an attorney's withholding from an expert certain matters that are known about a case.

Faced with opportunities for giving expert testimony for fifteen years, challenged occasionally by colleagues troubled about the ethics of working for clients whose righteousness is unclear, and having heard colleagues aver that they would never work for a client whose righteousness or innocence they weren't fully convinced of, I have had occasion to weigh certain ethical considerations surrounding expert witnesssing in forensic linguistics, and I have had to formulate some guidelines for myself. They are designed to keep me aware of some of the snares of our partisan system, while allowing me to offer testimony on behalf of litigants whose righteousness I cannot know until a trier of fact decides the matter.

1. Don't allow yourself to believe that a lawyer has told you all she knows of a case or, for that matter, that she knows all there is to know, including who's right or innocent.

2. Distinguish carefully between your roles as expert witness and as consultant. To the attorney who has retained your services these roles may be indistinct. But for the expert these roles must remain separate because as a consultant you serve the client and the client's cause, whereas as an expert witness you serve the court and the cause of justice.

3. Consistently conduct yourself in your analysis and reporting as though opposing counsel had retained a linguist

shrewder and more insightful than you, a linguist whose task (as consultant) may be to review your analysis and declarations, your curriculum vitae and publications, and your previous testimony and public statements, so as to provide her retainers with the most challenging and damaging questions with which to depose and cross-examine you. Be mindful that her implicit task may be to discredit your methodology, provide counterexamples to your generalizations, and perhaps raise questions about your suitability for the task at hand.

4. Recognize that certain questions will not be asked of you in direct examination because your retainers can anticipate your replies and may not wish a trier of fact to hear them. But those questions may well arise in depositions or cross examination and an ethical expert must be prepared to inform a trier of fact both expertly and honestly, no matter the question.

Keeping such guidelines in mind cannot guarantee ethical behavior on an expert's part, of course. But attending to them helps structure a degree of awareness with respect to the adversarial nature of the American judicial system. That awareness, in turn, can help avoid unwittingly unethical behavior by linguists disposed to put their expert knowlege to work in the service of justice but unaccustomed to the adversarial character of the American judicial system.

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Ed Finegan is Professor of Linguistics at the University of Southern California, where he has taught for the past 25 years. He is the general editor of the series *Oxford Studies in Sociolinguistics,* co-editor of a recent volume *Sociolinguistic Perspectives on Register,* and author of *Language: Its Structure and Use,* an introductory language textbook now in its second edition. At present he is engaged in a historical study of English registers, including several "legal" registers, and in various functional analyses of aspects of English grammar. He is a frequent consultant to attorneys and in litigation and has recently rewritten certain jury instructions for greater clarity.

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CIOS

Ethics, Standards, and Professionalism in Language Testing[1]

Charles W. Stansfield
Center for Applied Linguistics, Washington, DC

This discussion addresses matters of ethics, standards, and professionalism in language testing. It begins with a definition of relevant terms, reviews current standards and codes that are relevant to language testing, and discusses their relationship to professionalism and the emergence of language testing as a profession. The author describes several personal experiences to illustrate the ethical choices that professional language testers often face. Sometimes these choices involve competing allegiances, which, in turn, create ethical dilemmas. The ethical issues, problems, choices, and dilemmas encountered by language testers provide evidence of the need for a code of ethics for language testing specialists who develop formal test instruments or work with formal language testing programs.

PROLOGUE

After reading the language testing literature, I began teaching a graduate course in language testing at the University of Colorado in 1972. After ten years of teaching this course and consulting on occasional projects, I wanted to devote myself full time to the practice of language testing. So I left academia and entered the world of test makers and test publishers. I spent the next five years at Educational Testing Service, and have now spent seven years at the Center for Applied Linguistics. Throughout this time, there have been many occasions when I have been concerned about

the issues of ethics, professionalism, and standards in the context of language testing. I have found that these matters do affect the decisions I must make and that ethical concerns can pose major dilemmas to language testers. Therefore, I agreed to accept the invitation to talk on the subject at this symposium on ethics in applied linguistics. I hope the following thoughts on the subject can be useful to others involved in language test development.

DEFINITION OF TERMS: ETHICS AND STANDARDS

It is appropriate to begin a discussion of ethics by defining terms. In reviewing the definition of ethics and related words, naturally, I find that *ethics* has different meanings. As a branch of philosophy, it is concerned with the moral choices an individual must make in relationships with others. *Moral* seems to be a key word in understanding the meaning of ethics. Lexicographers define it as relating to the judgement of the goodness or badness of human action and character. So the concept of good and bad or good and evil is part of the philosopher's usage of the word *ethics*.

Ethics can also be applied to the professions, where it is sometimes called "applied ethics." When applied to a profession, *ethics* commonly refers to a set of principles governing the conduct of members of the profession. Here, *ethics* is used as the plural of *ethic*, which is a principle of correct or good conduct. So, in the context of language testing, *ethics* refers to a set of principles of good conduct in doing what language testers do. These principles would involve the regulation of professional conduct. A collection of ethics that has been formally adopted by an association is usually referred to as a *code of ethics*.

Closely related to ethics is *standards*. Indeed, the two terms are sometimes used synonymously. In this discussion however, I use the term *standards* to refer to technical criteria that are to be adhered to by professionals. This usage should not be confused with the psychometric meaning of standard, which is a basis for making comparisons in performance. Thus, in some sense, *ethics* is used here to refer to the moral conduct of language testers as people practicing their profession. *Standards* is used to refer to the procedures language testers follow in developing tests, operating test programs, or administering and interpreting tests and test

scores. Of course, standards and ethics invariably overlap since developing a test or operating a test program involves applying technical criteria within the context of moral and professional behavior.

Nonetheless, it is pedagogically useful to maintain the distinction, and a description of formally adopted standards and ethics that are relevant to language testers may contribute to an understanding of the minor differences between the two. I will focus on how they are developed and adopted, and the role they can play in the regulation of professional conduct.

PREEXISTING CODES AND STANDARDS

The field of language testing is as much a part of the field of educational research and measurement as it is of applied linguistics. Since the field of educational measurement already has a set of standards and a code of ethics, it is worthwhile to consider their application to language testing.

The APA Standards

A well-defined set of standards for language testers is the *Standards for Educational and Psychological Tests*, developed jointly by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education (1985). Commonly known as the *APA Standards* or simply the *Standards*, this is the "bible" of the test industry and the testing profession. First published in 1966, they were updated in 1974 and again in 1986.

The *APA Standards* consist of a set of rules that can serve as guidelines for the development of standardized tests and the operation of test programs. The standards are grouped in four sections and sixteen categories that begin with necessary background information authoritatively presented. Then, several standards are clearly stated in each category, and where necessary additional guidance, in the form of comments, follows. The *APA Standards* are organized as follows:

Technical Standards for Test Construction and Evaluation

1. Validity (25 standards)
2. Reliability and Errors of Measurement (12 standards)
3. Test Development and Revision (25 standards)
4. Scaling, Norming, Score Comparability, and Equating (9 standards)
5. Test Publication: Technical Manuals and User's Guides (11 standards)

Professional Standards for Test Use

6. General Principles of Test Use (13 standards)
7. Clinical Testing (6 standards)
8. Educational Testing and Psychological Testing in the Schools (12 standards)
9. Test Use in Counseling (9 standards)
10. Employment Testing (9 standards)
11. Professional and Occupational Licensure and Certification (5 standards)
12. Program Evaluation (8 standards)

Standards for Particular Applications

13. Testing Linguistic Minorities (7 standards)
14. Testing People Who Have Handicapping Conditions (8 standards)

Standards for Administrative Procedures

15. Test Administration, Scoring, and Reporting (11 standards)
16. Protecting the Rights of Test Takers (10 standards)

The *APA Standards* have had a profound effect on test publishing in the United States. The major test publishers use the *Standards* as a manual for carrying out their business. When publishing a test manual, for instance, they often refer to the *Standards* (see category 5 above) in an effort to comply with its maxims to the greatest degree possible. Although all test publishers are not equally guided by the *Standards*, the *Standards* have had a substantial impact on the practice of testing in the United States where they serve as a vehicle for voluntary quality control. This has

not been the case in other countries, however. The *Standards* are largely unknown outside the United States and to my knowledge no nationally accepted document comparable to the *APA Standards* exists in other countries.

The Code of Fair Testing Practices

A few years ago, I was privileged to participate in the development of the *Code of Fair Testing Practices in Education* (National Council on Measurement in Education, 1988). The *Code* was developed under the sponsorship of several professional associations which are heavily involved in educational assessment: the American Educational Research Association (AERA), the American Psychological Association (APA), the National Council on Measurement in Education (NCME), the Association for Measurement and Evaluation in Counseling and Development, and the American Speech-Language-Hearing Association.

The *Code* was the outcome of cooperation between commercial test publishers and representatives of relevant professional associations. This cooperation began in 1984 with a meeting of representatives of 23 test publishers and representatives of the AERA, NCME, and APA. At this meeting, the Joint Committee on Testing Practices was formed. This committee sanctioned the formation of two working groups, the *Code of Fair Testing Practices in Education* Work Group and the Test User Qualifications Work Group. Following additional meetings with more test publishers and relevant professional associations, each work group produced a document (Diamond & Fremer, 1989).

When organizations, institutions, and individual professionals adopt the *Code*, they commit to safeguarding the rights of test takers by following the principles prescribed in it. The *Code* is similar to certain parts of the *Standards for Educational and Psychological Testing*, but it differs in audience, purpose, and focus. The *Code* is meant to be understood by the general public; its scope is limited to educational tests; and it focuses on those issues that affect the proper use of tests. The *Code* does not create new principles over and above those in the *Standards*. Rather, it presents a selected portion of the *Standards* in a way that is meaningful to test takers and their parents or guardians.[2]

Although the *Code of Fair Testing Practices in Education* is, strictly speaking, not a code of ethics, it does have some of the

characteristics of a code of ethics in that it focuses on professional behavior with the goal of reducing the frequency of behaviors that could negatively impact examinees. It states the obligations to test takers of test makers and of professionals who use educational tests. While the *Code* is meant to apply broadly to the use of tests in education (admission, educational assessment, educational diagnosis, and student placement), it does not cover employment, licensure, or certification testing. Although the *Code* is relevant to many types of educational tests, it is directed primarily at professionally developed tests rather than tests made by individual teachers for use in their own classrooms.

The *Code* addresses the roles of test developer and test users separately. Test users are those who select tests, commission test development services, or make decisions based on test scores. The *Code* focuses on desirable behaviors in four main areas:

A. Developing/Selecting Tests
B. Interpreting Scores
C. Striving for Fairness
D. Informing Test Takers

The discussion of each area begins with general behavioral principles for each group, followed by specific behaviors that relate to the general principles for that area. In all, 21 behaviors are delineated side by side for each group. For example, the two general principles for the first area (Developing/Selecting Tests) are as follows.

Test developers should provide the information that test users need to select appropriate tests.

Test users should select tests that meet the purpose for which they are to be used and that are appropriate for the intended test-taking populations.

Since its publication, the *Code of Fair Testing Practices in Education* has been endorsed by over 100 professional associations and test publishers who have agreed to implement its tenets. This is an example of the contribution that professional cooperation through associations can make to the regulation of the conduct of individual and corporate practitioners.

The Test User Qualifications Work Group produced a series of papers specifying the qualifications that test purchasers should have. They produced sample forms for publishers that identify desirable knowledge and skills and require the purchaser to affirm that the test will be used responsibly. Both this document and the *Code* are examples of professionals working together to both clarify and specify ethical practices and standards within their profession.

PROFESSIONALISM

A discussion of standards and ethics in the context of language testing raises the issue of professionalism. Professionalism is important only if one believes language testing to be a profession, and central to this belief is the question of domain. In whose domain does language testing lie and what ethical ramifications are traceable to this question? One could argue that competency in language testing should be achieved by all language teachers.[3] However, it is not realistic to expect all teachers to have the knowledge, skills, and abilities that professional language testers must acquire, and which are crucial to the field.

Whether one views language testing as a profession depends in part on one's concept of what it means to be a profession. The traditional professions of law, medicine, and divinity are sometimes considered examples of what it means to be a profession. These fields require extensive training, an apprenticeship (except in the case of law), certification of one's background, skills, and knowledge, approval by professional boards, and even licensure (in the case of law and medicine). If such requirements were applied uniformly to all fields, it is doubtful that language testing would ever be viewed as a profession. However, a broader definition of *profession* is an occupation that requires considerable education or training. Defined as such, language testing clearly meets the criteria of a profession. Since language educators need not possess the special understanding of general testing concerns that language testers possess, this is further evidence that language testing could claim to be a profession of its own.

In recent years some events have moved language testing in the direction of having the status of a profession. Clearly, an important event was the commencement in 1984 of a journal

(*Language Testing*) devoted to the subject. A more recent event was the formal creation of a professional association, the International Language Testing Association (ILTA), in February 1992, with a constitution, officers and a board of directors. The founding of ILTA was preceded by a year of formal and informal discussions among language testing specialists concerning the need for such an association. These discussions took place at international conferences devoted to language testing.[4] Because I moderated most of them, I know that many testing specialists are concerned about the degree to which language testers are accorded appropriate respect as professionals. This was, in fact, one perceived benefit of forming an association; that is, one characteristic of a professional is that he or she belongs to an association that represents the professional concerns of its members.

The concern for recognition of professional status motivates some ILTA members' support for other initiatives. Among these are the creation of a code of ethics for language testers, standards for language tests, formal certification of testers, and even licensure by the association. The latter two possibilities were considered when the ILTA Constitution was being drafted, since certification and licensure could have implications for one's status as a member of the association. Ultimately, we decided that membership in the association should be open to anyone interested in language testing. Still, this does not preclude ILTA from establishing a certification or licensure program at some point in the future.

ILTA is in a unique position to lead in the development of such a code of ethics for language testing. Because ILTA is an international association, the code's impact would affect the language testing community on a world-wide basis. The current national basis of most professional codes of ethics limits their effectiveness, but a code adopted by ILTA would not be limited by national boundaries.[5]

It can be concluded that most professions have a code of ethics, and many people consider a code of ethics to be a *sine qua non* of a profession. Thus, having a code of ethics might increase the stature of language testing. A more compelling reason for establishing a code is that it would provide language testers with a set of guidelines to follow as they confront problems while going about their business. Such guidelines would not just be comforting; they would also result in higher quality language tests and test programs.[6]

SOME ETHICAL ISSUES AND PROBLEMS IN LANGUAGE TESTING

A number of inter-related contemporary issues in language testing raise ethical concerns. Sometimes these issues are complex and sometimes they involve competing concerns of an ethical nature, producing ethical dilemmas. One such issue is preparing students to take standardized language tests, such as the TOEFL. Another broader ethical concern, encompassing many different kinds of behavior, is the applications of test scores by test users.

An important ethical dilemma with wide implications for language testing is the matter of cost versus quality of measurement, i.e., reliability and validity. In this respect, language testing is no different than health care, in that high quality health care is expensive and money spent on health care could instead be spent in other ways that would also improve the quality of life within a society. One could spend a large amount of money to produce a language test that is both highly valid and highly reliable. However, one has to choose between the gain in the quality of the measurement outcome and the cost of the gain to whoever is paying for the test, be it the examinee, or some institution, corporation, or agency. It is here that standards and a code of ethics can be of help to the test developer or test program manager. The adoption of standards and an ethical code ultimately means that one must either follow them to a very significant degree or consider withdrawing from involvement in the project. A professional who does neither would risk losing face among his or her colleagues.

Test Preparation Courses

In the United States until the 1980s, the practice of preparing a student for certain kinds of standardized tests, such as aptitude tests like the SAT or language proficiency tests like the TOEFL, was considered unethical by many testing professionals. This was because such tests are supposed to measure some relatively stable trait that is not amenable to rapid improvement. Test publishers criticized the ethics of authors of test preparation books, the proprietors of test preparation schools, and the teachers of test preparation courses. Test publishers gave test candidates some

sample test questions and told them to have faith that the test would measure their abilities accurately.

While I do not condone misrepresenting or overstating the value of a test preparation course, to me such courses, when not misrepresented, do not raise serious ethical concerns. Each examinee has a true ability level in the construct being measured. A good test preparation course will familiarize the examinee with the way the construct is measured on the test. If the examinee thoroughly understands the test developer's approach, he or she will be able to demonstrate through the test his or her full ability level, at least to the degree that the test is valid and reliable. Indeed, on this basis, one could argue that teachers have an ethical obligation to familiarize students with the format of a standardized test, if the test will be used to make an important decision about the students.

Bachman and Palmer (1982), Shohamy (1984), and others have shown that the item types used to assess a construct can influence the scores of examinees. That is to say, examinees of equal ability will appear to differ in ability due to the differences in the format of each test. This phenomenon is known as the test method effect. By preparing students for a test, we can reduce or eliminate the test method effect.

In 1991, I led the development of an oral proficiency test that is used to certify Spanish, French, and bilingual education teachers in one of the larger states within the USA. With the cooperation of the state education agency, we developed a full-length sample test and an 80 page test preparation manual to accompany this test. The manual is written for prospective examinees. It thoroughly explains the format of the test, the nature of each generic test task, the scale by which raters evaluate performance, and the criteria raters consider when placing a performance on the scale. A cassette tape provides the test candidate with the opportunity to take the test. The reverse side of the tape provides the candidate with examples of examinee performance at each level on the test scale in response to items on the sample test. Candidates take the sample test and then compare their performance with the performances on the other side of the tape. Thus, they can give themselves a tentative rating and decide whether they feel ready to register for the test. We have received very positive feedback from examinees who clearly stated that they appreciated knowing what to expect when they entered the test center. They consistently comment that the test preparation kit

prepared them for what to expect with the result that they were able to perform as well as their second language skills would permit.[7]

Cost versus Quality

Testing professionals who construct tests under contract with specific clients are often faced with the cost versus quality issue. Often, the issue is indeed an ethical dilemma. Typically, one takes the amount of available money into account in the design of the test. Thus, one constructs the best test that one can for the amount of money available for test development and for maintenance of the operational test program. However, one is often faced with turning down an interesting test development project because the client is not willing or able to provide enough funds to develop a high quality test. I have faced this situation so many times that it is now easy for me to reject such projects. In spite of this, no matter how inadequate the funding, there is always someone who claims they can develop a good test for the amount of money available.[8] A recent example may be illustrative.

In 1990, a United States government agency issued a request for proposals to develop and validate speaking and reading proficiency tests for its employees in a large number of languages. It was expected that the work would be done in one year. Although the project seemed interesting, the number of languages involved and the time table indicated that the agency did not appreciate the complexity and, therefore, the cost of the task. Consequently, I decided not to bid for it. Ultimately, a contract was let to a vendor who had proposed to develop the tests for a fee that was within the amount the agency apparently expected the tests to cost. Later, I heard that the agency determined the tests were of such poor quality that they could not be used. Of course, the fault here lies with both the vendor, who said it could do the work just to get the money, and with the funding agency, which did not adequately investigate the cost of developing a high quality test. The vendor may not have had any idea how complex test development and validation is, since the company had almost no experience in test development. Thus, this outcome may have resulted from naive rather than unethical behavior on the part of the vendor. Yet, if one is aware that a reasonably good test cannot be developed for the amount of money available, it would seem to be at least somewhat unethical to accept the project

knowing that the outcome is unlikely to help the contractor. Yet contractors accept such work regularly.

Another more complex situation arises after one has created a high quality test and turned it over to the client, who has made it an operational program for some specific purpose. I have developed second language proficiency tests under contract with two state education agencies, which use them as part of the teacher certification process. Each time, after the agency has approved the type of test developed and indicated that it would implement it as discussed in our proposal and in our final report, due to competing budgetary demands, the cost of operating the program has eventually become a concern. When this happens, my support as the test developer is sought in order to legitimatize some proposed cost-saving measures that would actually negatively impact the examinees. These measures typically involve reducing the length of the test (which reduces the cost of test administration), reducing the amount of training given to raters of productive skills tests (which reduces the cost of training), or scoring only a portion of the performance rather than the entire performance (which reduces the cost of scoring).

Each time this happens, I suggest any cost saving measures that can be taken without compromising test quality. However, each of the above proposals usually means a reduction in reliability or validity, and I explain why it cannot be done. One state has always accepted my response and continued to operate the program in a way that ensures quality assessment. In the other state, eventually my response was greeted with antipathy, even anger. Because the client funded me to develop the test, the client felt that I was obliged to endorse any new policies circumstances may dictate. When I refused to do so, the client ended our relationship. So, pressure from a client can be quite intimidating, particularly if language testing pays one's salary and the salary of one's employees.[9]

It should be pointed out, in fairness to the language tester's client, that the money spent to operate language testing programs could also be put to other educational uses. Money saved might be used to address other educational needs that appear more important at the moment.[10] Thus, a proposal that would diminish the quality of a test program poses ethical dilemmas on multiple planes. Nonetheless, I believe that cost saving proposals that will harm the quality of a test program or instrument are to be resisted, especially in the case of high stakes tests such as those used to determine

suitability for employment. Quite simply, if a high stakes test program cannot maintain an adequate degree of internal quality control, then it should probably be discontinued.[11]

Some test development companies have confronted this problem by developing a set of standards of their own, which they present to potential clients. Such standards can be quite useful in maintaining quality control, if they are followed by all test program managers. The *ETS Standards for Quality and Fairness* (1983) are an example. Nonetheless, program managers clearly wish to please the client, and may be more willing to compromise internal standards than to risk annoying or offending the client. Due to this possibility, some companies carry out an occasional internal audit of each test program in order to determine the degree to which it is in compliance.

It would be foolish for each individual test developer to develop his or her own set of standards. Each could argue that his or her standards are wholly appropriate and ensure quality control and responsibility, even if this were not the case. A set of standards for language tests in general could cause different test developers to follow similar practices which are widely held to be appropriate. Thus, a set of standards could contribute meaningfully to quality control across test projects. A code of ethics could also have a similar beneficial effect.

Rater Training

Because language testing is likely to involve the training of raters, language testers often encounter moral choices concerning the training of raters. On one occasion, while conducting a four day workshop on the oral proficiency interview after which the participating teachers were to receive a certificate, I was called aside by a high level administrator. He told me that he wanted his assistant certified also, but that the assistant was very busy and could only attend part of the workshop. I resolved this problem by requiring all participants to independently rate a series of tapes to a given standard of accuracy. Because the administrator's assistant did not meet the standard, no certificate was issued.

A similar situation occurred a week before the conference at which I delivered this paper. An administrator who works with a test I developed told me he needed to be approved to administer and score the test, but that he did not have time to go through the formal

training process. He suggested that he be allowed to develop his skills through informal self-study and on the job experience. Although it was a bit brazen of me to do so, my response was to phone this person's supervisor and suggest that he be required to go through the same training as everyone else. When it was explained to me that this was not possible, a compromise was reached. Under the compromise, the individual will go through a different training process involving self-study, yet the process will still be quite formal in nature. At the end, he will have to demonstrate the same proficiency in administering and scoring the test as all others who carry out this task.

A related dilemma involves the training of a large group of raters prior to the operational scoring of a productive skills test. Invariably, some trainees will fail a "calibration" test at the end of the training. Such tests are used to ensure that all trainees can use the rating scale with adequate accuracy. When someone fails he or she is given additional training and another calibration test. When someone fails the second calibration test, one is faced with bringing possible embarrassment to that individual by not allowing him or her to participate in the operational scoring. This may be an ethical issue also. My response is always to carefully explain to the individual that it is important that everyone be able to rate accurately so that no examinee will be treated unfairly. Thus far, each time I have explained this, the individual has volunteered not to participate in the scoring session.

In the situations I have described above, it seemed at the moment that I would be better off to acquiesce and to let the client, the client's representative, or some other relevant player in the process have his or her way. After all, all of us like to be seen as cooperative people who are willing to help solve problems in the simplest possible way. Ultimately, however, I believe that ethical conduct is one way that I am able to project my professionalism. The maintenance of this professionalism is in my long term best interest.

CONCLUSION

This paper has reviewed some current standards and codes that are relevant to language testing and discussed their relationship to the acceptance of language testing as a profession. I have drawn on my own personal experience to describe some of the situations that language testers can encounter where faced with ethical choices.

As can be seen, professional language testers constantly confront problems that relate to professional ethics and standards. Sometimes, the problems involve conflicting perceptions of fairness. At other times, the problems relate to the degree of compromise that one can tolerate and still have a quality product or program. The degree of compromise is crucial, since it affects the test developer, the client, the examinees, score users, and others who could be impacted by the decisions made based on test scores. Ultimately, the quality of tests affects and is of concern to society at large. Guidance on how to deal with issues of ethics and standards can be provided by a code of professional ethics for language testers and by standards for developing language tests and operating language testing programs. Ultimately, the psychometric qualities and appropriateness of language tests and the ethical behavior of professional language testers affect the stature of language testers in particular and applied linguists in general.[12]

NOTES

[1] This paper was distributed and summarized orally at the Colloquium on Ethics and Applied Linguistics held at the annual meeting of the American Association of Applied Linguistics in Atlanta, GA, April 17-19, 1993. Please direct comments and reactions to the author at 1118 22nd St. NW, Washington, DC 20037; email CAL@GUVAX. Helpful comments on an earlier draft were made by Dorry Kenyon, Meg Malone, and the editors of this special issue of IAL.

[2] At the 1990 business meeting, in Thessaloniki, Greece, of the AILA Scientific Commission on Language Tests and Testing, John de Jong, then chair of the Commission, proposed that the *Code of Fair Testing Practices*, with two additional statements added, become the set of standards for language testing. However, when introduced at the business meeting, the proposal was tabled following discussion. The Code and the additions were subsequently reprinted in *Language Testing Update* (deJong, 1991) with a request for comments. Other activities pertinent to standards are mentioned in a recently published article by Fred Davidson

(1993) that was brought to my attention at the AAAL conference at which this paper was presented.

³ This is true of the interface between testing and other areas of education as well. In most other disciplines teachers are even more lacking than second language teachers in the concepts of valid and reliable measurement. The growing importance of assessment in the educational process and the concern that teachers are lacking in their understanding of measurement, motivated the American Federation of Teachers, the National Council on Measurement in Education, and the National Education Association (1990) to produce a document called *Standards for Teacher Competence in Educational Assessment of Students.*

⁴ Major discussions were held at the 1990 Language Testing Research Colloquium in San Francisco, the 1990 Regional English Language Center conference in Singapore, at the 1990 AILA world conference in Thessaloniki Greece, and at the 1990 ACROLT meeting in Israel. Following these discussions, in 1991 a group of people met at the 1991 Language Testing Research Colloquium in Princeton, New Jersey to consider what had been learned during the discussion. At that meeting the author presented a formal written proposal to proceed with plans for the formation of a professional association. The proposal included the creation of a steering committee to draft a constitution for the organization. The work of the committee was presented and approved with minor revisions on February 28, 1992. Subsequently, officers and an executive board were elected.

⁵ If at some point ILTA should begin to develop a code of ethics, some excellent and relevant codes that have already been developed should be considered. In addition to the *Code of Fair Testing Practices in Education*, I find the *Ethical Standards of the American Educational Research Association* (AERA, 1992) to be a helpful document in that it provides guidance on a number of issues that affect all researchers, including those in applied linguistics and language testing. Similarly, should ILTA ever wish to develop standards of competency in language testing for language teachers, the document mentioned in note 3 above would be helpful.

⁶ Furthermore, the process of drafting, reviewing, revising or updating a set of standards or a code of ethics would be very valuable educational experience for all involved.

⁷ Because the focus of this article is on ethical problems encountered by language test developers, we will not treat questionable test preparation practices of some language teachers.

⁸ One could call this the P.T. Barnum effect.

⁹ This example suggests that as test developers we must be responsible in the public statements we make about our language tests. It also suggests that we should not shirk responsibility for the consequences of our acts. Each of the two preceding sentences are close to being individual statements of ethics.

¹⁰ On the other hand, a test that provides positive washback is a cost effective means of improving education.

¹¹ The situation professional language test developers sometimes confront is not unlike that described in the classic American play, *All My Sons*, by Arthur Miller. In this play, the father reduces the quality of airplane parts in order to earn more money which he uses to provide a better standard of living for his family. Eventually, the inferior parts cause planes to crash, with the result that the family suffers shame and, eventually, disaster.

[12] Many of the issues treated in this article (the need for a code of ethics, technical standards of quality, documents with international impact, and the short-term benefits versus the long term costs of acquiescing to a client's demands) may also apply to some degree to other subfields of applied linguistics whenever those professing to have expertise in these subfields "apply" their expertise outside of academia in a workplace, a school setting, a hospital, or in a court of justice.

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Charles W. Stansfield is director of the Division of Foreign Language Education and Testing as well as the ERIC Clearinghouse for Languages and Linguistics at the Center for Applied Linguistics in Washington, DC. He led the formation of the International Language Testing Association (ILTA) and served as the organization's first president. He has published extensively on language testing and has led the development of many formal second language proficiency tests.

Ethical Issues for Applying Linguistics to Clinical Contexts:
The Case of Speech-Language Pathology

Heidi E. Hamilton
Georgetown University

In all applications of linguistics to clinical contexts, I understand the overriding ethical concern of the linguist to be "How can I make sure that patients are getting the best care possible whenever language is concerned?" This is, of course, not to say that linguists cannot themselves expect to benefit from professional relationships with clinicians, e.g., fascinating and illuminating data are often made available to the linguist in the process. But my experiences working with clinicians in several different settings have led me to believe that the linguist's perspective is critical to a more complete understanding of any clinical situation which involves language, such as history-taking in a doctor's office or bed-side talk in a hospital. Interactions between clinicians and patients can have potentially important consequences for the patient's well-being. These consequences can involve the more concrete, such as the relaying of necessary information to the doctor, as well as the more abstract, such as a patient's sense of identity and self-esteem. Whatever the level, the linguist's perspective is likely to offer insights different from those of the clinician which bear on the content and quality of service delivery.

Of course, without clinical expertise, the most sensible way for us as linguists to attempt to help patients is by helping the clinicians who are responsible for them to understand the role which language plays in their work. In this paper, I explore some of the more general issues of the application of linguistics to clinical contexts by focusing specifically on my experiences over the past two-and-one-half years in applying interactional sociolinguistics and discourse analysis to clinical investigations of language pathology at

Walter Reed Army Medical Center in Washington, DC. The clinicians involved in this project all have advanced degrees in aphasiology or speech-language pathology. These clinicians, therefore, are somewhat different from the majority of clinicians with whom linguists might collaborate, in that they know a great deal about language in general, even though they may lack specific expertise regarding language variation, discourse-level structures and functions, and interactional concerns.

Aspects of speech-language pathology work to which linguistics has been applied in the project under discussion here include the following four areas: 1) the test battery; 2) the diagnostic interview in which the test battery is administered; 3) the evaluation tool, called the Modified Communication Performance Scale; and 4) the administration of this performance scale. Following a brief description of the project in which I am involved at the Walter Reed Army Medical Center, each of the four aspects is discussed in turn. The paper then concludes with some general guidelines which have been derived from my participation in this project.

WALTER REED DEFENSE HEAD INJURY PROJECT[1]

The ongoing project with which I am associated at Walter Reed Army Medical Center, called the Defense Head Injury Project, evaluates active duty military persons who have suffered a traumatic brain injury by, for example, hitting a metal pole while sledding off-duty or parachuting into a grove of trees, followed by a period of more than 24 hours of amnesia. The injury had to have occurred no more than three months prior to the patient's initial evaluation to be included in this project. Complete neurological evaluations and neuropsychological, speech-language, and occupational therapy test batteries are administered to the patients upon entry into the project, and then again at two, six, twelve, and twenty-four months after study entry. Similar to Finegan's (this volume) discussion of the limited role of linguists as expert witnesses in the overall determination of the guilt or innocence of a defendant, here too the role of the linguist is very limited and indirect in terms of a patient's diagnosis, as well it should be. The first patients were tested in early 1992; during the subsequent twelve months, more than thirty patients have been evaluated.

During early pilot tests before the speech-language pathology evaluation was designed, it became clear to the speech clinicians involved in the Defense Head Injury Project that the language and communication problems of these patients were different from those the clinicians had been trained to deal with, i.e., the more "classic" aphasias. After turning to work within the area of pragmatics in the speech-language pathology literature (Ehrlich & Sipes, 1985; Prutting & Kirchner, 1987; and Kennedy, 1991), the clinicians realized their need for assistance to better understand the issues involved from a linguistic perspective. They called the Department of Linguistics of Georgetown University and talked with me, since I was teaching a course in pragmatics at the time. Since I had just completed a four-and-one-half year longitudinal study of conversations I had had with one Alzheimer's patient (Hamilton, 1994) and had been consulting on an informal basis on discourse-level issues with the Language and the Aging Brain project at the Boston Veterans Administration Hospital, I was pleased to have an opportunity to be involved in an active way with an ongoing project of this type. Over the past two-and-one-half years, I have met approximately once a month—at times as frequently as once a week—with the clinicians at the hospital. In order to expose Georgetown graduate students to some of these issues, I offered a seminar entitled "Discourse in Clinical Populations" in Spring 1992, in which the students were able to analyze the audiotaped interviews and written narratives of the first six patients in the study. The students' seminar papers were shared with the Walter Reed clinicians, who found them highly informative and provocative.

Applications of Linguistics to the Project

Although space constraints preclude an exhaustive discussion of the linguist's role in each of the four areas of the speech-language pathology diagnostic proceedings outlined above, I will try to characterize selected ethical issues which arise in various types of involvement, drawing on my own experiences, as well as on the findings of the graduate students participating in the seminar mentioned above.

1. Applications to the test battery: Here the driving question focuses on whether the test is designed in such as way as to uncover the patient's communicative strengths and weaknesses, which are of interest to the speech clinicians. Because the decision about whether

to place the patient in an in- or out-patient treatment program or to return the patient to some type of employment in the military is based in part on the patient's performance in the diagnostic interview (and the subsequent diagnostic label), it was the clinicians' goal in the project in question to ensure that the communicative strengths and weaknesses exhibited by the patient during the interview be as close as possible to those which would likely be exhibited in that individual's military workplace. Examples of these communicative behaviors include both being able to ask for clarification and to respond appropriately and fully to requests for clarification, and being able to convey information in a clear and concise way.

Since the clinicians at Walter Reed were primarily asking for my assistance in setting up tasks which would elicit extended periods of discourse from the patient (including both naturally occurring conversational discourse and elicited personal experience narratives),[2] I drew on basic methodological insights regarding the sociolinguistic interview (e.g., attention to speech, observer's paradox, and group vs. individual interviews), as well as investigations of vicarious and personal experience narratives, in both elicited and spontaneous situations.

Linguists can be of assistance to clinicians at this level during the actual construction of the test questions and tasks, or in the subsequent evaluation of pilot data to determine how well the questions and tasks are holding up in the actual interviews. Assistance can take various forms. For example, drawing on my experience with discourse features of everyday spoken narratives, I advised the clinicians early on that a particular black and white line drawing they had selected from a standardized aphasia battery would *not* function well in eliciting extended narratives from patients. Against my advice, they decided to go ahead and use the drawing, only to discover that it was eliciting primarily dry descriptions rather than the narratives they had expected. The task was subsequently changed. The fact that the clinicians did not initially take my advice in this particular case points to the importance of establishing an extended relationship with the clinicians which will engender greater trust over time. At the present point in our relationship, the clinicians are much more likely to accept on faith advice I offer them regarding discourse issues.

In another situation, I was asked to go into the clinical interview room, sit down at the table, read the piece of paper in front of me, and carry out the task requested of me. The task was to find

out how to get to a particular local office supply store whose name was given with no other information. On the table (apparently for my use in this task) were the following items: one pad of paper, a pen, a telephone, and various telephone books and street atlases. To make a long story short, I called up the store and found out what I needed to know, using the pen and pad to note only those directions which were unfamiliar to me. When the clinicians came into the room and saw my scribblings, it was clear to me that I had not performed as expected, which would have included a notation of every street en route to the store from the hospital. Needless to say, a discussion ensued regarding the full range of "normal" behaviors and how they might relate to issues of being an insider or outsider to Washington streets. This small example underscores the need for piloting all potential tasks and test questions on "normal" control subjects in an attempt to understand the range of acceptable behaviors possible in response to a given task or question.

As mentioned above, linguists can also be involved in pointing to possible problems in the test battery by analyzing pilot data. In her final paper for my seminar on clinical discourse, Robin (1992) argues that the personal experience narratives which are elicited as part of the test battery in response to the prompt "Tell me about what happened to you, about your injury" may in fact not be appropriate for assessing pragmatic competence on the part of the narrator. Robin claims that some of the organizational problems these narratives display, as well as the prevalence of what appear to be non-essential details, may stem from the fact that the patients are forced by their memory loss to shift at the critical point of the resolution of the story from recounting the events as a personal experience which they remember to reporting events as they were told them by witnesses after "everything went black." This unusual feature of the narrative task *may*, therefore, account for some of the pragmatic difficulties displayed by the patient at this point in the test battery.

2. Applications to the administration of the test battery within the diagnostic interview: Regardless of whether the test battery has been constructed specifically for a particular clinical project, as is the case of the Walter Reed study, or whether a standardized aphasia battery is selected for use in a project, the test battery must be administered to particular patients at particular times. The initial assumption on the part of many clinicians (not just at Walter Reed), however, is that neither the test battery nor the

interviewer will significantly influence the language produced by the patient, i.e., that the test situation is, in a word, objective. But, despite the fact that a clinician may be asking questions from a script so as to make the evaluation as objective as possible (but see Rosenfeld (1992) for an analysis of the impact of the clinicians' deviations from the script), nothing can change the fact that the diagnostic interview is an interaction between *two* interlocutors. The fact that the patient is *not* reading a script allows for the interaction to go off in a direction unanticipated by the clinician. This situation alone may lend a slightly different meaning to the scripted questions when they do occur in an actual interview (see Rosenfeld (1992) for discussion).

Indeed, Shudo (1992) argues that the very attempts by the interviewer to remain strictly objective may create an unnatural situation for conversation. Shudo asks whether or not it is justified to evaluate a patient's use of language as inappropriate when the clinician's script did not allow the kinds of follow-up questions which might be expected to occur in an unscripted interaction, such as occurs outside the diagnostic interview. As an illustration she points to the following excerpt from one of the patient interviews:

Clinician: And tell me
             [2 second pause]
             what you've been doing..
             since your injury.

     [10.5 second pause]

Patient: Recovering.

[13 second pause]

Clinician: And tell me about your job in the military.

[7 second pause]

Patient: I'm a patient at Walter Reed Hospital.

[11 second pause]

Clinician: And tell me what happened to you..
             about your injury.

Of course, the patient's abbreviated language behavior *does* seem to be marked within the context of the diagnostic interview. However, further investigation would be needed to determine whether this is an indication of a pragmatic difficulty of some kind or simply belligerence on the part of the patient. Shudo's point, however, is that, in the absence of a request for clarification or for elaboration (such as "What do you mean by that?" or "Well, besides that?"), an evaluation of the patient's abilities may be made on the basis of insufficient information.

Besides the possible unexpected influence of the interviewer's script, as discussed above, and the obvious influence that the interviewer's gender, age, ethnicity, and/or race may have on the language used by the patient, two additional questions seem to be central to the analysis of the administration of the test battery: 1) Does the clinician accommodate her language (see Coupland, Coupland, Giles & Henwood, 1988, for a discussion of communication accommodation theory) to some preconceived notion about the patient, based possibly on the patient's race, ethnicity, gender, age, socioeconomic status, educational background, etc.? And, if so, is there evidence that this accommodation influences the patient's language behavior?; and 2) Is there evidence of a mismatch between clinician and patient regarding the purpose of the interaction (i.e., is this an evaluation of memory, of intelligence, and/or of language?) which could result in different language use as the patient tries to exhibit the good memory, the high intelligence, or the intact language that he believes is being evaluated?

The issue of accommodation is illustrated by a clinician's deviation from a scripted prompt, "Tell me about what happened to you, about your injury," which she uses with all other patients, to ask "What was the precipitating event?" of one patient. Further examination uncovers that the patient who receives this higher register question is one who the clinician knows to have an advanced academic degree as opposed to the high school diplomas most of the other patients have as their highest academic achievement.

Evidence of mismatch regarding the purpose of the overall interview or of a component of it can be found in the patients' use of self-repair throughout the interaction. For example, in a written narrative elicited by viewing a copy of a Norman Rockwell painting, one patient scratched out lexical items he had used repeatedly in the narrative to replace them with synonyms, not realizing that his

purpose (which was apparently to write an aesthetically pleasing short story) would backfire, and that revisions of *all* types were actually counted against him according to the rating scale used by the clinicians.

The application of linguistics to the interaction in which the test battery is administered requires a good deal of microanalysis of transcriptions in order to be convincing to clinicians. In my experience, clinicians may be slow in the early stages of the working relationship to take a linguist's advice regarding specific tasks or interactional concerns (as was discussed above in the case of the narrative-eliciting illustration), not because of closed-mindedness on their part, but simply because the advice did not make sense within the clinicians' paradigm. Competent microanalysis which is carefully interpreted with an eye towards the clinicians' paradigm can go a long ways in working to establish both a common frame of reference and a higher degree of trust between clinicians and linguist. This frame of reference and trust can then be drawn upon in future discussions to facilitate quicker acceptance of the linguist's advice.

Because the linguist's involvement at this level is very demanding, this kind of analysis would probably appeal only to linguists who had a primary research interest in the field of communication disorders or who had student assistants who could carry out much of the transcription and analysis. Bringing these interactional issues to the awareness of the clinicians is useful, but without microanalysis, the issues themselves would probably not result in a change of behavior or attitude on the part of the clinicians. Since speech clinicians are not in the business of evaluating their own language use, there is a great need for work of this type by linguists to try to stave off the great potential for skewed data based solely on patients' use of language.

3. Applications to the performance scale: Here, as at the previous levels, it is possible for the linguist to be involved during the construction of the rating scale or in subsequent revisions following some pilot testing of the scale. The involvement of the linguist during construction of the scale is similar to the linguist's involvement during the construction of the test battery: that is, to listen to the clinicians' needs regarding the communicative behaviors of the patients and to assist in devising appropriate categories and descriptions of a range of appropriate and inappropriate behaviors.

In the case of the project under discussion, the rating scale called the "Modified Communication Performance Scale," based on the work of Prutting and Kirchner (1987), Ehrlich and Sipes (1985), and Kennedy (1991) had been constructed in January, 1991, without my input. The fourteen communicative behaviors[3] which are evaluated as either 3 "consistent and persistent behavior that is clearly abnormal," 2 "behavior similar to that observed in the previous category but that is inconsistently present," 1 "behavior that falls within the normal range," or 0 "no instances of this behavior could be observed for evaluation" proved to be somewhat problematic to apply. Sample problems include the following: 1) how to define normal behavior when we know that normal behavior is extremely variable within the "normal" population; 2) how to differentiate between behavior rated as a 2 (inconsistently inappropriate) and that rated as a 3 (consistently inappropriate), i.e., what constitutes "consistent" behavior within the interview?; 3) how to handle constraints by the formal interview context on the exhibition of many of the fourteen behaviors, including the variety of speech acts and initiation of conversation; 4) how to approach the conflation of different behaviors within the same category (cohesion and coherence in category G, topic maintenance and topic content in category I, and conversational initiation and response in category J); and 5) how to provide a clear place to mark behavior regarding assumed shared knowledge, which seems to be a significant difficulty for many of these head-injured patients. These problems are currently being addressed and the performance scale is being revised accordingly.

4. Applications to the administration of the performance scale: This has proven to be the most important and time-consuming area for my own involvement as a linguist in the Defense Head Injury Project. Often I sit with the clinicians and listen to an audiotaped interview or watch a videotape and fill out the performance scale with them. At various points throughout the recording and then again at the end of the recording, we discuss all fourteen behaviors in detail, plus any behaviors which we feel were significant in the interview but which have no clear place in the scale.

This is the level at which on-site informal training in linguistics takes place. I see this training in linguistics to be a critical piece in the ethics of the sustained relationship which exists between the clinicians and me. In other words, I believe it more ethically

sound for me to *teach* the clinicians to approach their data like linguists, so that they have experience which they can build on from session to session, rather than for me to provide them with a finished analysis of their data. In this way, our discussions can become increasingly sophisticated over time and the division of labor involved in such analyses can shift over time from the linguist to the clinicians.

Such training sessions typically begin with discussions in response to a clinician's statement to the effect that "Something strange is going on here, but I can't quite put my finger on it." Communicative phenomena identified as contributing to the 'strangeness' in the interaction seem to fall into two categories: those which could plausibly be difficulties related in some way to the patient's head injury and those which seem to be related to dialectal differences or attitudinal considerations. Illustrations of the first type (possible relationship to head injury) include the following: topic shifts which are unmarked as such for the listener; insufficient expansion of a previous response following a specific request by the clinician for the patient to do so; consistent overestimation on the part of the patient regarding knowledge shared with the clinician; and disorganized narrative accounts. Illustrations of the second type (possible relationship to dialectal difference or attitude), which I have difficulty imagining being the result of a head injury include: use of nonstandard English syntax, such as "He don't come around here much anymore;" difficulties in overall intelligibility of the patient (which sometimes seem to be due to dialectal differences between the patient and the clinician); somewhat flat intonational contours which sometimes seem to be due to mild depression or lack of interest in the interview on the part of the patient; and greatly reduced participation by the patient which sometimes seems to be due to belligerence. Because the clinicians do not have samples of these patients' speech and writing prior to their head injury, however, it is difficult (if not impossible) to know for sure if a particular communicative problem is due to the head injury or if the patient communicated that way before the injury.

Uncertainty as to possible explanations was at the heart of one difficult discussion regarding our different rating of the communicative performance of two patients during their interviews. I had been very reluctant to rate a patient's nonstandard English syntax or a patient's somewhat flat intonational contours with a 2 (inconsistently abnormal behavior), if that syntax seemed to co-

occur with lexical and phonological features of a particular nonstandard English variety, or if the intonational contour seemed to co-occur with conversational topics which suggested depression or lack of interest in the interview.

I was told at the time, however, that it was not our responsibility as raters of the patients' performance to think about possible causes of the patient behavior, but rather to try to describe that behavior as completely and accurately as possible. I, of course, could understand on a theoretical level the desire on the part of the clinicians to separate description from interpretation or explanation, but I needed to be reassured that my rating a patient's behavior as somehow abnormal would not necessarily contribute to a diagnosis which would result in him being enrolled in a treatment program when the behavior could have been consistent with his pre-injury behavior. The clinicians assured me that the rating scale is just one piece of the overall evaluation of the patient and that, if the behavior in question were due to a dialectal difference or an attitudinal consideration, this would be discovered as the data from the various tests and interviews were being correlated.

Although I have agreed (for now) to try to separate out description from interpretation as I rate patients' behavior, I am still somewhat uneasy with this situation, as it calls to mind the atrocities of the 1960s (and later) in which nonstandard English speaking children were required to meet with speech-language pathologists in schools. This ethical dilemma seems to me to be similar to a possible dilemma of the linguist as expert witness in a court case. Just as a linguist cannot be concerned with the guilt or innocence of a defendant, as that is the duty of the jury or judge (see Finegan, this volume; and Shuy, 1993), in clinical cases, the linguist cannot be concerned with the final diagnosis of a patient. In both cases, it seems to be the linguist's ethical responsibility to carry out the best possible analysis using the available data. In the specific situation regarding nonstandard syntax just discussed, it could be argued that I conceded too much to the clinicians in our ideological tug-of-war and that I am no longer carrying out what I believe the best analysis to be. The current nature of our compromise (which includes a notation at the top of the patient's evaluation form in cases where it seems that dialect or attitude are at work), however, allows me to continue to work with the clinicians towards improving their paradigm. This continued working relationship, albeit not perfect, leaves the door open to a possible paradigm shift down the road; a

breakdown in our working relationship, on the other hand, as a possible result of my being too insistent too early on certain changes could close that door.

Given the situation just described, however, the problem still remains as to how to talk about "normal" behavior, when the variety of such "normal" behavior within the "normal" population is so great for many of the categories included in the performance scale (see Lesser & Milroy, 1993, for an excellent discussion of this problem). Depending on the patient's language use, our discussions have included issues of style shifting, bilingual interference, cross-cultural pragmatics, gender differences in language use, regional variation, and social variation with regard to the categories of prosody/rate, body posture/proxemics, facial expression/affect, lexical selection, syntax, organization, variety of language uses, interruption/turn-taking, listener responses, and sociolinguistic sensitivity. In short, clinicians are faced with having to determine what "normal" turn-taking behavior is, what "normal" topical development is, what "normal" storytelling is, what "normal" eye gaze is, and so forth which, as we know, is a very complicated task. One of the clinicians told me in a conversation which took place two years after I became involved in the project, "This is all very complex. You've been telling us this and we're finally beginning to understand it."

In fact this last quotation reveals the long-term, sustained training efforts which I believe to be fundamental to a linguist's ethical concerns regarding clinical contexts. As I stated at the beginning of this paper, it seems to me that the most sensible way for linguists to attempt to help patients is by helping the clinicians who are responsible for them to understand the role which language, in all its complexities, plays in their work. It is important in this enterprise, however, to keep a keen focus on educating the client. If fascinating research projects are sparked by an attempt to understand some aspect of this complexity, it is crucial for the linguist not to lose sight of the patient. Because, for us as linguists and for the clinicians as well, such complexity can be intriguing and provoke us to undertake more and more sophisticated research; for the patients who are currently being diagnosed and treated for language problems, however, it is a much more immediate and pressing concern. As one patient back for his 12-month evaluation in the Defense Head Injury Project said, "This has ruined my life," referring to the fact that his diagnosis prevented him from returning

to the tank-driving job he had held before his injury and had placed him instead in a much less satisfying (to him) desk job.

Of course, the patient's diagnosis may have been—and probably was—correct. But, knowing what we know about the many problematic points at each of the levels I discuss in this paper—at the levels of the construction of the test battery and its administration in interaction, as well as at the levels of the construction of the performance scale and its administration in the analysis of the patient's discourse—I believe that linguists who know and care about this kind of research owe it to the patient population to get involved with and stay involved with clinicians.

Some guidelines for applying linguistics to the speech-language pathology context

In order for the linguist to be allowed to stay involved with clinicians, of course, it is important for all participants to work towards establishing a healthy working relationship. Based on my experiences, I offer the following modest, common-sense guidelines.

1. Discuss basic assumptions: Early in the professional relationship, exchange basic literature from your respective fields as it relates to the project at hand. Be prepared to discuss this literature and elaborate upon it by avoiding jargon and using real-life examples. Identify the assumptions (explicit or implicit) in the articles about the nature of language, interaction, methodology, and whatever else might be relevant. Discuss these assumptions, identifying related apparent assumptions on the part of the clinicians and being careful to point out similarities and differences between what you assume and what they assume. Try hard not to be judgmental; at this point both sides are learning. If something seems suspicious, odd, or just plain wrong, try to find out more about it by probing in a relatively neutral way.

2. Continue to build up mutual frames of reference and shared knowledge: Both sides should begin in the early meetings by defining terms and concepts in as simple a way as possible, without, of course, being misleading. Build on these simple definitions in subsequent meetings, bringing in more and more sophistication as the data and discussion warrant it. Be persistent in stressing factors which you believe to be of the utmost importance. In my experience, this persistence (if done in a low-key

way) does eventually pay off. Approximately two years after my first meeting with the Walter Reed clinicians, and after relentless emphasis on the importance of context in the analysis of patients' language use in the diagnostic interview, the clinicians decided to initiate a small study using the data from the Defense Head Injury Project. This study will investigate the validity of the assessment of patients' communicative abilities during the diagnostic interview by comparing the ratings made by the diagnosing clinician with those made independently in more informal contexts during the first week of treatment by the therapist. It seems that my point about context had finally been accepted as relevant and potentially important for the clinicians' work.

3. Offer assistance in any area of the project which involves language: Be alert to any opportunity to get in your linguistic "two-cents-worth." As should be clear from the above discussion, such opportunities may occur at the level of choosing or creating a test battery or performance scale (or specific portions of these) or at the levels of the administration of the test battery or the performance scale. Be ready to act as a guinea pig in pilot tests of specific tasks (even of non-linguistic ones, such as the telephone task discussed above) and, importantly, don't be reluctant to discuss the pros and cons of the tasks you just undertook. If you would like your involvement to extend beyond on-site advice, discussion, and analysis to the microanalysis of the data for your own research purposes, be sure to discuss this with the clinicians so that they can begin to work out an agreement with the research staff regarding access to data and the necessary permission by the patients.

4. Suggest ways in which your students may become involved in the project: Setting up a seminar in which students can work with the data in the ongoing project has the potential to benefit all involved. Students have an opportunity to apply what they have been learning about language to a real-life project and to discuss the ups and downs of working in a cross-disciplinary endeavor without having individually to seek access to such a project. You, as the link between the students and the clinicians, have a chance to discuss relevant issues and concerns with other linguists. And, finally, the clinicians have the opportunity to gain new perspectives and insights, including some valuable constructive criticism, into their project.

5. Keep an open mind: It is my experience that, by keeping an open mind and listening critically to what the clinicians say, you will

learn a good deal about why their assumptions and methodologies are as they are. Real-world considerations which enter the discussion may necessitate the revision of a task or instrument, or demand a compromise in order to allow the project to proceed. Demanding that things be carried out in the most linguistically sound way may actually result in your influence being cut off entirely (as was discussed above in the example of nonstandard syntax). In my view, if we are indeed trying to use our linguistic knowledge to help patients (albeit indirectly), keeping communication and influence lines open vis-à-vis the patients' clinicians, even in the face of having to make some concessions, is the ethical choice to make.

6. Voice any ethical concerns you might have: Do not be reluctant to speak up immediately if some aspect of the project strikes you as being potentially unethical from your point of view. If this is done in an non-accusatory way, it is my experience that the clinicians will be more than willing to make sure that the issue is discussed and resolved to everyone's satisfaction. Clinicians have their own code of ethics to guide their work, and will not be willfully acting in disservice of the patients. Of course, should you find yourself in a situation where an ethical issue was not resolved to your satisfaction, it would seem to be an ethical duty to remove yourself from the project, explicitly stating the reasons for doing so. In extreme cases, it would seem warranted to discuss the relevant issues with the clinicians' supervisors and, failing satisfactory resolution there, to bring the issues to the attention of a more neutral body.

7. Be patient: Changing assumptions and learning new definitions, theories, and methodologies takes time. Do not expect others to be convinced immediately that your approach is the one that should be adopted.

8. Retain your outsider status/perspective: Of course, it is important to attempt to learn as much as you can about the assumptions and methodologies subscribed to by the clinicians with whom you are working. But experience has led me to believe that you will continue to be most beneficial to the professional relationship if you keep your linguist identity firmly intact. Your knowledge about the other discipline will help you to design more convincing arguments and fend off additional potential criticism; it will also help you to focus in on the most crucial areas of application. But it is only by continuing to provide information as yet unknown to the clinicians and by continuing to play devil's

advocate that you can help to move the project in the direction in which you believe it should go. It was in this sense that I asked the students in my graduate seminar on discourse in clinical populations to address their final papers to the clinicians, grounding any criticism in and basing any recommendations on sound linguistic/discourse analytical theory and methodology. This instruction allowed the students to make significant, provocative contributions to the Defense Head Injury Project based on what the students knew (discourse analysis, pragmatics, and interactional sociolinguistics) without the students having to pretend that they knew enough about speech-language pathology to criticize the overall framework of the project.

Such cross-disciplinary encounters, which are necessarily part of the application of linguistics, can range from the highly frustrating to the highly gratifying. Whether one finds herself batting her head up against the wall of indifference to linguists' perspectives on language or whether one finds himself in a pleasant learning environment seems to have very much to do with open-mindedness on all sides and a sense of common purpose among all concerned. But, whether frustrating or gratifying, these encounters are characterized by divergent—and sometimes opposing— viewpoints on almost all conceivable levels. This need not be bad. During a recent meeting, after I had offered yet another piece of constructive criticism followed by an apologetic remark, "That's just from my perspective, of course," one of the clinicians commented, "Oh, that's okay, Heidi. We *need* you to be different!"

NOTES

[1] My deepest appreciation and respect go to Ms. Marcia Bond and Dr. Bonnie Podraza of the Walter Reed Army Medical Center for their open minds and collegial spirit which have resulted in a wonderful learning experience for me.

[2] The portion of the overall test battery which focuses on extended discourse comprises approximately 10-15 minutes of the first of two partial days of testing. The discourse section is followed by tests of oral paragraph comprehension, repetition of lexical items and sentences, object naming, animal naming fluency, delayed recall of the oral paragraph, and writing dictated sentences.

[3] The fourteen categories in the January 1991 version of the scale include the following: A) intelligibility, B) prosody/rate, C) body posture/proxemics, D) facial expression/affect, E) lexical selection, F) syntax, G) cohesiveness/organization, H) variety of language uses, I) topic, J) initiation of

conversation, K) repair, L) interruption/turn-taking, M) listening, and N) sociolinguistic sensitivity.

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Heidi E. Hamilton is Assistant Professor of Linguistics at Georgetown University in Washington, DC. Her research and teaching interests include: discourse analysis, interactional sociolinguistics, language and clinical populations, language and aging, and language and Alzheimer's disease. Her book *Conversations with an Alzheimer's Patient* has just been published by Cambridge University Press.

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Ethical Considerations in Language Awareness Programs

Walt Wolfram
North Carolina State University

*Two traditional principles have served as the basis for the involvement of linguists in social issues, namely, the **principle of error correction** and the **principle of debt incurred** (Labov, 1982). It is argued that an additional principle should motivate linguists to take a more proactive role in social issues, namely the **principle of linguistic gratuity**. One such proactive role is involvement in Language Awareness Programs, which are designed to provide an understanding of and an appreciation for variety in language. I consider the rationale for and programmatic structure of two experimental language awareness programs, along with a discussion of some of the ethical issues that need to be considered in the implementation of such programs. Ethical considerations include the ethics of persuasion and need, the ethics of presentation, the ethics of representation, the ethics of socio-educational change, and the ethics of accommodation.*

INTRODUCTION

The relatively short history of social dialectology has shown that it is quite possible to combine a commitment to the objective description of sociolinguistic data and a concern for social issues. At the same time that social dialectologists have contributed substantively to our understanding of language variation, they have, at various junctures over the past three decades, become involved in several important social and socio-educational issues related to dialect diversity.[1]

According to Labov (1982), there are two primary principles that may motivate linguists to take social action, namely, the

principle of error correction and the *principle of debt incurred.*
These are articulated as follows:

Principle of Error Correction

> A scientist who becomes aware of a widespread idea or
> social practice with important consequences that is
> invalidated by his own data is obligated to bring this error to
> the attention of the widest possible audience (Labov, 1982,
> p. 172).

Principle of Debt Incurred

> An investigator who has obtained linguistic data from
> members of a speech community has an obligation to use the
> knowledge based on that data for the benefit of the
> community, when it has need of it (Labov, 1982, p. 173)

There are several outstanding instances in the history of
social dialectology where these principles have been applied. In the
1960s, sociolinguists took a prominent pro-difference stance in the
so-called *deficit-difference controversy* that was taking place within
education and within speech and language pathology (Baratz, 1968;
Labov, 1972; Taylor, 1969; Wolfram, 1970). Consonant with the
principle of error correction, sociolinguists took a united stand
against the classification and treatment of normal, natural dialect
differences as language deficits or disorders. There is little doubt
that sociolinguists played a major role in pushing the definition of
linguistic normalcy toward a dialectally-sensitive one, although the
practical consequences of this definition are still being worked out in
many clinical and educational settings (Cole & Deal, forthcoming;
Wolfram, Adger & Detwyler , 1993).
In keeping with the principle of debt incurred, social
dialectologists also rose to the occasion in the celebrated Ann Arbor
Decision (1979). Linguistic testimony was critical to Judge Joiner's
ruling in favor of the African American plaintiff children who
brought suit against the Board of Education for not taking their
dialect into account in reading instruction. In effect, the judge ruled
that the defendants had failed to take appropriate action to overcome
language barriers, in violation of Title 20 of the U.S. Code, Section
1703 (f).[2] In compliance with the judge's ruling, a series of

workshops was conducted to upgrade awareness and to apply sociolinguistic expertise in reading instruction.

These relatively well-known cases of social involvement are not the only ones in which the principles of social action articulated by Labov have been applied. There are many other instances where linguists have been involved in individual or corporate cases related to language equity in the workplace, the educational system, and the society at large. For the most part, however, the social role assumed by the linguist in these cases has been that of *reactive advocacy*, where the linguist responds to a social inequity by providing sociolinguistic evidence. In the typical scenario, a linguist who has conducted research in a particular community is called upon or feels obligated to respond to some erroneous sociolinguistic assumption or conclusion about the language of the community, as the language is threatened socio-politically or socio-educationally.

A POSITIVE PROACTIVE ROLE

While I do not mean to minimize the reactive advocacy role for linguists, I would like to suggest that there is another level of social commitment that investigators should adopt toward the language communities who have provided them data.[3] This level is more positive and proactive, in that it involves active pursuit of ways in which linguistic favors can be returned to the community. Thus, I propose an additional principle of social commitment which I call *the principle of linguistic gratuity*.

> Investigators who have obtained linguistic data from members of a speech community should actively pursue positive ways in which they can return linguistic favors to the community.

This principle is not mutually exclusive with the principles offered by Labov; in fact, it seems to be a reasonable extension of social obligation on the part of linguists. However, this level of social responsibility is not restricted by a qualification based on recognized community needs, as is Labov's principle of indebtedness. Instead, I maintain that linguistic researchers should creatively search for a community-based collaborative model to

return linguistic favors. I focus here on sociolinguistic research, but many of the principles are certainly applicable to language research on a broader level.

Sociolinguists have been conducting community based studies for a number of years now, but the majority of studies have been unidirectional in terms of linguistic profit and education. Researchers have not typically involved themselves in community based programs that positively project the language of the community. From the perspective of the gratuity principle, however, they should actively look for ways in which they can dovetail their research findings with community-based collaborative ventures, including but not limited to the traditional educational system. In the following sections, I give an overview of two initiatives that attempt to apply the linguistic gratuity principle. The programs described here involve a school-based program in a large metropolitan area, Baltimore, Maryland, and a more broadly-based community program in a small quasi-isolated island community off the coast islands of North Carolina. The situations that gave rise to the Language Awareness Programs in these communities are quite different and the ways in which the projects are being worked out vary, yet there are some common principles that unite the projects.[4] Furthermore, there are some common ethical considerations that have arisen in these disparate situations that need to be discussed. In the following sections, I briefly summarize these programs, including the rationale for their development. This is followed by a discussion of some of the ethical issues that we have had to face in the process of their development and implementation.

THE BALTIMORE PROJECT

As part of a research project to enhance the delivery of services to African American Vernacular English (AAVE) speakers in special education, Wolfram, Adger, and Detwyler (1992) piloted a language awareness curriculum in the Baltimore City Public Schools. The program was designed to introduce students to the natural basis of language variation for humanistic, scientific, and socio-historical reasons.

Why should students be introduced to the study of language differences when they already engage in the study of some aspect of

language arts or English language study at practically every grade level in their compulsory education? There are several reasons for suggesting that such a curriculum unit is desirable and that it is consonant with the principles for social action set forth above. Educational systems should be committed to a fundamental search for truth - the truth about laws of nature and matter. When it comes to language differences, however, there is an educational tolerance of misinformation and folklore that is matched in few subject areas. There exists an entrenched mythology about "dialects" that pervades the popular and educational understanding of this topic, particularly with respect to the nature of standard and vernacular varieties (Wolfram, 1991a). And the factual misinformation is not all innocent folklore. Operating on erroneous assumptions about language differences, it is easy for educators and students to fall prey to the perpetuation of unjustified stereotypes about language as it relates to class, race, and region. The potential for dialect discrimination (Milroy & Milroy, 1985) cannot be taken more lightly than any other type of discrimination. Thus, an educational system that takes on the responsibility to educate students concerning the truth about racial and social differences and the effects of this discrimination based on these differences in other areas should feel obliged to extend this discussion to language as well. At the very least, the American educational system should assume responsibility for replacing the entrenched mythology about language differences with factual information, in keeping with the *principle of error correction.* To illustrate a sample lesson plan from the curriculum piloted in Baltimore with a humanistic goal, I include a lesson unit on the nature of dialects in Appendix A.

Issues of equity in education include how students feel about other students and themselves. Students who speak socially favored varieties may view their dialectally-different peers as linguistically deficient. Worse yet, speakers of socially disfavored varieties may come to accept this viewpoint about their own variety of language. Students need to understand the natural sociolinguistic principles that lead to the development and maintenance of language varieties apart from their relative social status. A rationale for a Language Awareness Program embedded in equity considerations is in keeping with Labov's *principle of debt incurred.*

The study of language differences offers another enticement, namely, the investigation of language patterning as a kind of scientific inquiry. In its present form, the study of language in the

schools has been reduced to laborious, taxonomic exercises such as "parts of speech" identification, sentence parsing, and other comparable metalinguistic exercises of questionable value. The study of language differences offers a fascinating window through which the dynamic nature of language patterning can be viewed. Looking at the nature of language differences can provide a natural laboratory for making generalizations drawn from carefully described sets of data. Students can hypothesize about certain forms of language and then check them out on the basis of actual usage patterns. This process is, of course, a type of scientific inquiry into language that is generally untapped in students' present instruction about language. Appendix B includes three different exercises that exemplify how the study of language differences can be linked to a scientific goal. The exercises include an Eastern New England dialect, a Southern dialect, and AAVE. This selection of representative dialects falls in line with our humanistic goal of exposing students to a variety of dialects along regional, social, and ethnic dimensions at the same time it fulfills our scientific goal of introducing students to the nature of language patterning.

On a cultural-historical level, the program's objective is to have students gain a sense of appreciation for the historical development of a variety of English, in this case AAVE. As students consider the ancestral cultural linguistic traditions and circumstances that gave rise to this variety, they see the continuity of their ancestral language heritage. This is a positive presentation of a unique sociolinguistic history. Part of a unit representing a socio-historical objective is illustrated in Appendix C.

THE OCRACOKE PROGRAM

The Ocracoke Language Awareness Program is, at this point, still programmatic since we have only completed the initial phase of our data collection. However, it is intended to be a more broadly-based community project than the Baltimore program. This is possible, in part, because of some community-based cultural values that provide a comfortable context for the application of the *linguistic gratuity principle*.

First of all, we are writing a popular account of the language history of Ocracoke that is intended to be useful to the Ocracoke

residents, including the school system (Wolfram & Estes, forthcoming). In part, this history is motivated by the *principle of error correction* since there is a widely publicized stereotype that Ocracoke speech is simply a retention of Elizabethan English. While relic forms are certainly found in Ocracoke, the general stereotype needs to be challenged on the basis of carefully documented evidence. The language history and description of Ocracoke speech, however, is also motivated by the *linguistic gratuity principle*. Islanders are proud of their historical heritage and are quite knowledgeable about their genealogies, and we hope to build on this indigenous value by working with the community to describe the role of language traditions in the development of the Ocracoke community. For example, Ocracokers are conscious of some unique island or Outer Banks lexical items and some of these items have, in fact, become symbolic tokens of island quaintness.[5] Thus, a simple, relatively superficial vocabulary-based exercise such as that provided in Appendix D is rooted in islanders' pride in their unique historical lexical heritage.

We are also compiling an archival tape of representative speech samples from our interviews to share with the Ocracoke Historical Preservation Society so that language will be preserved along with other physical and cultural artifacts. Language is, in many ways, the most sacred of all cultural traditions and is the rightful property of its users. We hope to be sensitive to the symbolic role of language, and to preserve this unique artifact that has been shared with us by archiving for present and future generations of Ocracokers the current state of Ocracoke English and the apparent time changes that are represented in the current population of Ocracokers.

With the cooperation of the educational system, we plan to produce a modified Language Awareness Program on the model of the Baltimore Project which is appropriate for Ocracoke. Thus, school children should be exposed to a unit on language as they explore the socio-historical circumstances that have molded the development and maintenance of Ocracoke in particular and the coastal culture of North Carolina in general, along with the general development of dialects in the United States. In the best of all scenarios, we hope to involve students not simply as passive observers of language variation but as student ethnographers in the active collection and description of Ocracoke speech.

SOME ETHICAL CONSIDERATIONS

The overview of the Baltimore and Ocracoke Language Awareness Programs are idealized accounts in that they do not consider some of the difficulties we have encountered and continue to struggle with in the implementation of the programs; nor do they consider some of the issues that we have wrestled with in attempting to apply the three principles of social responsibility set forth at the outset of this discussion. In reality, the road leading to these programs has hardly been a smooth one. In fact, we finally piloted the Language Awareness Program in Baltimore only after a string of rejections by other school systems over the last decade. And the program does not yet have system-wide approval; it is still under close scrutiny and there is no assurance that it will be adopted as a regular part of the curriculum or even a regular optional curriculum for language specialists and classroom teachers. In the process, we have struggled to be faithful to our application of social principles while being sensitive to the desires and goals of the educational and social community in Baltimore. And it is at this point that I need to raise some of the attendant ethical issues.

There are at least five different kinds of ethical considerations that we have faced in our journey toward a Language Awareness Program. Some of these we have resolved to our own satisfaction, but others we still struggle with as we attempt to fulfill our socio-educational responsibility while respecting the values and convictions of the communities who have shared their language heritage with us.

One of the immediate considerations in the types of Language Awareness Programs we have promulgated concerns the *ethics of persuasion and need.* As mentioned previously, our programs have NOT been received gratuitously as manifestations of the revealed sociolinguistic truth. Instead, we have had to convince systems that there is a need for this type of program. The "need" that Labov stipulates for the application of the *principle of debt incurred* has not typically been recognized on a collective level within the educational system or the community. Our rationale seems relatively straightforward and transparently ethical: students and community residents have a right to accurate knowledge about laws of nature and matter with respect to language. Furthermore, there is a reasonable humanistic, scientific, and socio-historical basis for sharing this truth with students. But remember, it is primarily

sociolinguistic outsiders who are telling a school system and community what THEIR need is. We are not responding to the explicitly stated needs of a community, but informing the community; we are trying to convince them of a need WE observe. In light of some language doctrines that linguists historically have sold or attempted to sell to the educational establishment, I honestly cannot blame an educational system that is suspicious of a group of outside sociolinguistic experts who propose socio-educational solutions. Furthermore, there is good reason to see a socio-political agenda behind some of the positions that sociolinguists have taken (e.g., Butters, 1991). We must ask, then, to what extent our own motive to pursue with students and educators the truth about dialects is separable from other agendas. For example, how sensitive are we to the role of educational institutions as socialization agents of mainstream middle-class values? Can the pursuit of knowledge in language variation ever really be decontextualized from a socio-political situation? These are just some of the questions we have to consider as we honestly face the *ethics of our persuasion*.

A second area of concern relates to the *ethics of representation*. Curiously, the disproportionate sociolinguistic attention publically paid to AAVE vis-a-vis other vernacular varieties over the last three decades has resulted in an unfortunate representation of dialects in many educational and public settings. With regular media coverage, countless "studies," and continued socio-educational concern, the term dialect has in some educational circles become a new synonym for AAVE. This is unfortunate because it singles out this dialect group disproportionately while creating a distorted picture of dialects in the United States. Furthermore, such unbalanced attention has sometimes been resented by African American communities as once again African American behavior is assigned marked, peculiar status.[6] In the presentation of our Language Awareness Program, we have been careful to represent other dialects, but we must always be vigilant about disproportionate representation. In our Baltimore program, we start out with dialects other than African American to demonstrate practically that this is NOT a curriculum about AAVE; it is a curriculum about dialects that includes AAVE as one of the important varieties of English.

One of the issues we have had to consider is the way we portray the different dialects. Choices are made about how we profile the dialects we include in our selective presentation. In most

cases, we have chosen to portray the more marked or extreme versions of dialects. For Eastern New England speech, for example, we select a categorical version of *r*-lessness even though there is considerable sociolinguistic variation across groups and even within individual speakers. Our portrayal of Appalachian English and AAVE also tends to focus on a more marked vernacular, or basilectal variety. And for Ocracoke, it is tempting to depict what islanders call the "brogue," a more vernacular version of the dialect spoken by a minority of speakers, most of whom are older residents, but the sociolinguistic situation is much more complex. In our presentation, we thus run the danger of creating simplistic dialect caricatures that defy the authentic complexity of the dialect communities we wish to represent. There is no easy antidote for this presentation dilemma given the restricted curriculum units we have devised, but certainly we must be sensitive to oversimplification. At present, we still grapple with our *ethics of presentation*, realizing that we must be prudent about falling prey to the Li'l Abner syndrome.

I noted previously that one of the underlying goals of our program is related to socio-educational equity. We hope that Language Awareness Programs will be a step toward according more equitable sociolinguistic treatment to vernacular dialect speakers. This position is taken on the basis of a socio-educational history that has traditionally misdiagnosed legitimate differences as disorders or inherent language deficits. The fact remains that there is still a grossly disproportionate number of vernacular dialect speakers who end up in special education programs on the basis of language assessment that does not carefully distinguish difference from disorder (Adger, Wolfram & Detwyler, 1993). And teachers' informal judgments of dialect speakers' capabilities and their corresponding expectations remain sensitive to the Pygmalian effect. I thus openly confess to a socio-educational agenda that includes more equitable sociolinguistic treatment of vernacular dialect speakers. Admittedly, my concern stems from an idealistic sociolinguistic perspective which is not necessarily shared by the education system and society at large. And, if I am introspectively honest, I must admit that the position may even be at odds with a sociolinguistic premise that admits the inevitability of standardization in language, along with an important set of social functions embodied in this standardization process (Garvey & Mathiot, 1956). To what extent can the socio-educational goal of equity and the

inevitable separatist function that derives from standardization realistically co-exist? And to what extent is it legitimate to motivate a Language Awareness Program with an underlying goal relating to socio-educational change. Unfortunately, sociolinguists, like any group of scientists, may be prone to oversell when they link their empirical findings to socio-political and socio-educational agendas. I am reminded of my own statement in a *Language* review article that considered a possible socio-political agenda behind the so-called divergence hypothesis with respect to AAVE:

> In the long run, a strict adherence to the linguistic facts will best serve everyone involved in issues related to VBE [Vernacular Black English]—the academic community of language variationists, the community of VBE speakers, and the disseminators of sociolinguistic information to the broader American public. (Wolfram, 1990, p. 131)

Are we guilty of seeing only the socio-political specks in the eyes of other linguists while ignoring the beam in our own? Certainly, we need to consider the *ethics of socio-educational change* carefully, honestly, and realistically.

Finally, we need to consider *ethics of accommodation.* We have tried to be honest in noting that our Language Awareness Program is not intended to provide the teaching of Standard English, nor is it intended to be a step that leads to the eventual teaching of Standard English. It is our position that students deserve the truth about dialect diversity and exposure to the rich dialect heritage of the United States, whether or not they ever choose to buy into the values that lead to the acquisition of a standard variety. At the same time, our program is not philosophically opposed to learning standard English. In fact, I personally endorse the acquisition of Standard English so long as it is understood that this variety is primarily a sociolinguistic cosmetic marking of mainstream middle-class culture. Is the separation of our current Language Awareness Program from important issues of standardness an artificial separation? One of the most hotly-debated aspects of Language Awareness Programs in the British Isles is their goal of using the programs in a progression toward teaching students Received Pronunciation (Clark, Fairclough, Ivanic & Martin-Jones, 1990). In my opinion, this debate is an important one, which leads to

questions about the ultimate goal of such programs in an educational system.   One of the most frequent questions posed by teachers is how our Language Awareness Program relates to students' need for the standard variety in school.   The answer is very complex, since it must be recognized that (1) there is an academic discourse register that seems important to school socialization and this register involves to some extent notions of a standard variety (Heath, 1983), and (2) the school = standard/home = vernacular language equation is far too simplistic to be useful to educators; in fact, this dichotomy misrepresents the complex use of dialect within and outside the school Adger, Wolfram, Detwyler & Harry, 1993).

The neutral, removed position that our Language Awareness Program takes with respect to the teaching of Standard English raises an unavoidable issue with respect to the *ethics of accommodation*.   In actual classroom experimentation with the program, we find ourselves performing balancing acts that may not be fair to the educational systems nor to our alleged program goals. This dilemma is perhaps best summarized by a situation that took place in one of the pilot classrooms.   As I conducted a dialect exercise in which African American students selected the grammatical context for habitual *be*, I noticed that the classroom teacher became increasingly uncomfortable with my affirmation of students' responses to the grammaticality of sentences such as *Sometimes my ears be itching* (versus the ungrammaticality of a sentence such as *My ears be itching right now).   I must confess that I "compromised" as I sensed that the teacher might feel my lesson was directly opposing her traditional efforts to teach Standard English.   I concluded the exercise by asking the students how they might be expected to say these sentences when called on in class. Without hesitation, they translated the sentences into their standard English counterparts.   The teacher was happy, and I didn't actually feel as sociolinguistically compromised as I thought I might.   In fact, I realized that there is a very tender balance between promoting the legitimacy and beauty of linguistic diversity and accommodating traditional socio-education goals that embrace some dimensions of the standard variety.

Upon later reflection I decided that maybe I didn't need to be a sociolinguistic revolutionary after all.   Perhaps it's adequate to be a sociolinguistic "do gooder" who recognizes that some of the indigenous cultural values of the educational system and the community must be conceded if we ever hope to have any

significant sociolinguistic input. And I also remembered the strong debates that my wife and I had while raising our four children to "achieve" in a society that is less than ideal. While I pontificated about the legitimacy and richness of vernacular dialects, she quietly but dogmatically insisted on our children's accommodation of existent language standards, even if it was a "sell out."[7] Our children eventually faced the middle-class workplace with reasonable facility in the standard variety. At the same time, they also did acquire a deep respect and appreciation for dialect diversity despite all my righteous bantering. How ethical is it for me to ask an educational system or a community to do what I couldn't accomplish with my own family? Progress is within reach, but sociolinguistic utopia remains elusive.

NOTES

[1] In this introduction, I limit myself to issues related to dialect diversity within English. Issues related to languages other than English, such as bilingualism and the "English Only" movement, deserve separate attention. Certainly, viable Language Awareness Programs should include the consideration of languages other than English, but this is left for separate discussion. Thanks to Carolyn Adger, Natalie Estes, and Barbara Fennell for their comments on my rambling reflections.

[2] The relevant portions of this Code are as follows:

No state shall deny equal educational opportunity to an individual on account of his or her race, color, sex, or national origin by ...

(f) the failure by an educational agency to take appropriate action to overcome language barriers that impede equal participation by its students in its instructional programs.

[3] There are, of course, some deeper ethical issues related to sociolinguistic data and social involvement that need to be considered from this position of reactive advocacy, such as the issue of empirical evidence and sociolinguistic premises, the definition of "community need", etc., but I leave these for another discussion.

[4] I use the term Language Awareness Program to refer to programs that are intended to gain an understanding of and appreciation for variation in language. The term is used here somewhat more broadly than it is used in the educational curriculum of so-called Language Awareness Programs in the United Kingdom and other European countries (e.g., Hawkins, 1984, 1985, but also see the types of controversy surrounding the program as discussed, for example, by Clark, Fairclough, Ivanic & Martin-Jones, 1990).

[5] Two anecdotes from our fieldwork experience in Ocracoke support this observation. After one interview with a prominent community member, the interviewee gave the fieldworkers a tee shirt that was inscribed with the phrase "Younguns hain't I been mommucked [sic] this day!!!" This phrase obviously seizes upon several relic forms (e.g. [h] retention in *haint*, initial [w] loss in *younguns*

'young ones'), but particularly the lexical item *mommuck* (alternatively spelled *mammick*), which is widely recognized by Ocracokers as a local term meaning 'to physically or mentally hassle.'

In another incident that took place during a preliminary visit with a potential interviewee, one of our fieldworkers was kiddingly challenged to find the meaning of *meehonkey* as a token of Island speech. After an extended period of good-natured teasing, the potential interviewee finally whispered to him the meaning of the term, excluding two other research team members who were present at the social visit. In effect, the subject was symbolically accepting the fieldworker through sharing the meaning of the localized lexical item. From that point, the fieldworker and the subject developed a close personal friendship that extended considerably beyond the outside fieldworker-local interviewee relationship typical of sociolinguistic studies.

[6] One of the comments offered by African Americans after viewing the video *American Tongues* (Alvarez & Kolker, 1987) supports this observation. On a number of occasions, I have been told by African Americans that they were glad this video profiled dialects other than AAVE so that it could help dispel the notion that only African Americans spoke noteworthy dialects.

[7] For the record, my wife, Marge, is the wisest person I have ever known in matters of everyday living. And this includes a lot of linguists among my acquaintances.

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Walt Wolfram, the William C. Friday Distinguished Professor at North Carolina State University, has pioneered research on a broad range of vernacular dialects, including African American English, Puerto Rican English, Appalachian English, Ozark English, Southern White Speech, Eastern Coastal Island English, American Indian English, and Vietnamese English. A special interest of his focuses on the effective dissemination of information on language variation to current practitioners and to the American public. This interest has included recent work on several TV documentaries about dialects in the United States, as well as many public presentations. He has recently developed dialect awareness materials for elementary school children which have caused him to consider the ethical questions raised in this article.

APPENDIX A: Example of a Curriculum Unit with a Humanistic Objective

UNIT ONE: The Nature of Dialects and Language Attitudes

OBJECTIVES	ACTIVITIES
1.1 To recognize dialect variation as a natural product of cultural and regional differences in society	1.1.1 Video vignettes from "American Tongues" 1.1.2 Small group discussion
1.2 To observe the range of language attitudes that are manifested about language, including the unwarranted stereotypes and linguistic prejudice often associated with language differences	1.2.1 Video vignettes from "American Tongues" 1.2.2 Small group discussion 1.2.3 Class discussion
1.3 To learn the distinction among dialect differences in pronunciation, grammar, and vocabulary	1.3.1 Workbook reading 1.3.2 Small group discussion 1.3.3 Class discussion
1.4 To begin making independent observations about language differences	1.4.1 Language Journal (Ongoing)

Requirements: Class distribution into small groups of 4-5 students each, with a leader, a recorder, and spokesperson for each group

Initial Organization: Students are broken into small groups of 4-5 students. Each group should have a leader responsible for coordinating student activities, a recorder who writes down responses for the group, and a spokesperson, who reports for the group in general class activities. These roles may be rotated or designated for the duration of the curriculum, although group membership should be the same for all lessons. Working groups may be given names reflecting dialect variation for some type of item (for example, groups may be given names for dialect variants of sandwiches (e.g.,) or drinks (e.g., *shake, frappe, cabinet, frost ('milkshake'); soda, pop, tonic*)

Time: 5 Minutes

Warm-up Activity: (whole class) Introduce students to the notion of dialect diversity by having students think of experiences in which they travelled to a different region or someone from a different region visited their area. Have them recount the kinds of things they noticed about language differences. Guide them to give specific examples of accent or language rather than vague overall characterizations such as "nasal", "twang", etc. After eliciting reactions to others' speech, have them relate experiences in which someone might have commented on something about their or their families' speech. ("Did someone from another area ever say anything about the way you speak?")

Introduce the notion that everyone speaks a dialect. This notion may be introduced by using the metaphor of a pie that is cut into pieces. It is impossible to eat the pie without eating a piece of the pie. Similarly, a person speaks a language only by speaking some dialect of the language (All major languages have dialects).

Time: 5 minutes

Video Vignettes and Small Group Discussion: Introduce the video "American Tongues" to the students by saying that they are going to see some examples of dialects about different places and different people in America. As students watch the video, they should think about the following set of questions. Place the questions on the chalkboard or on a display board at the front of the classroom.

What is a dialect?
What do people think about dialects?
Are people's feelings about dialects fair? Why or why not?
What do you think about dialects?
Can you give one example of a dialect difference from the video and one that is not on the video?

Time for Introduction of Video and Presentation of Questions: 25 minutes

Following the video, each group will discuss the questions and the group recorder will write down the group's response to each of the questions on a different 4" x 6" file card. In the case of disagreements among group members, different viewpoints should be represented by the recorder and spokesperson.

Time for Group Discussion: 10 minutes

Group Summary: Each group summarizes its answers to the questions for the entire class.

Time: 5 minutes

Introduction of Levels of Dialect: Introduce students to different language levels of dialect by referring to the definitions of **dialect pronunciation, dialect vocabulary,** and **dialect grammar** in the workbook. The examples in the definitions attempt to illustrate by using examples from other dialects as well as dialect variants found in the local area. Introduce the students to the definitions and ask them to give examples not found in the definitions.

WORD DEFINITIONS

DIALECT A form of a language spoken by a group of people from the same regional or cultural background. *Everyone speaks a dialect, even though some dialects are more noticeable than others.*

DIALECT PRONUNCIATION   When people from certain regions or cultural backgrounds *pronounce the same words differently*, it is called a **dialect pronunciation**.   For example, some people from New England pronounce the word *car* and *far* without the *r*.   Also, some people from the South may say *greasy* with a *z* sound in the middle of the word, so that they pronounce it as *greazy*.   In Baltimore, the way different people say the name of the city, *Baltimore*, or the different ways they say the word *dog* is a pronunciation difference.

DIALECT VOCABULARY   When people from certain regions or cultural backgrounds use *different words for the same thing, or the same word means something different* it is called a *dialect vocabulary* difference.   For example, some people in Philadelphia and New Jersey use the word *hoagie* for the same kind of sandwich that other people call a *sub*.   Also, some people in Pittsburgh, Pennsylvania, use the word *gumband* when people in other parts of the United States use the word *rubberband*.   In Baltimore, some people may ask if they may *hold a dollar* when people in other parts of the United States may say *borrow a dollar*. This is a vocabulary difference.

DIALECT GRAMMAR   When people from different regions or cultural backgrounds *put together their sentences or their words in different ways*, it is called a *dialect grammar* difference.   For example, some people from western Pennsylvania say *The house needs painted* when people from other parts of the United States say *The house needs painting*.   Also, some people from the Appalachian mountains say *The man went a-hunting* when other people say *The man went hunting*.   When African Americans in Baltimore say *They always be going to the park* where other groups say *They are always going to the park*, it is called a dialect grammar difference.

Time: 5 minutes

Introduction of Language Journal: At the back of each workbook are several pages entitled **Language Journal**. Instruct students to write down dialect forms that they observe outside of class (e.g., in the neighborhood, home), identifying what type of dialect difference it is.   They may also write down reactions to activities and discussions in class.   Instructors are encouraged to use a **Dialogue Journal** format for this curriculum. A brief overview of dialogue journals is given in the appendix.

Time: 5 minutes

APPENDIX B: Sample Exercises Demonstrating the Scientific Study of Language Patterning

**A.   EXAMPLE ONE: NEW ENGLAND R-DROPPING
HOW PRONUNCIATION DIFFERENCES WORK:
DROPPING *R* IN ENGLISH DIALECTS**

In New England and other dialects of English, the r̲ sound of words like *car* or *poor* can be dropped.   In these words, the *r* is not pronounced, so that these words sound like *"cah"* and *"poo"*. However, not all *r* sounds can be dropped.   In some places in a word, the *r* sound may be dropped and in other places it may NOT be dropped.   By comparing lists of words where the *r* may be dropped with lists of words where it may **NOT** be dropped, we can figure out a pattern for *r*-dropping.

List A gives words where the *r* may be DROPPED.

LIST A.   1. ca*r*
2. fathe*r*
3. ca*r*d
4. bigge*r*
5. ca*r*dboa*r*d
6. bee*r*
7. cou*r*t

List B gives words where the *r* sound may **NOT** be dropped. In other words, speakers who drop their r's in List A, pronounce the *r* in the words in List B.

LIST   B.   1. *r*un
                   2. b*r*ing
                   3. p*r*incipal
                   4. st*r*ing
                   5. ok*r*a
                   6. app*r*oach
                   7. Ap*r*il

To find a pattern for dropping the *r*, look at the type of sound that comes before the *r* in List A and in List B. Does a vowel or a consonant come before the *r* in List A? What comes before the *r* in List B? How can you predict where an *r* may or may not be dropped?

In List C, pick those words that may drop their *r* and those that may not drop their *r*. Use your knowledge of the *r*-dropping pattern that you learned by comparing List A and B.

LIST C

_____   1. bea*r*
_____   2. p*r*og*r*am
_____   3. fea*r*ful
_____   4. *r*ight
_____   5. compute*r*
_____   6. pa*r*ty
_____   7. fou*r*teen

Think of two new words that may drop an r and two new words that may NOT drop an r.

MORE ABOUT R-DROPPING PATTERNS

In the last exercise we saw that <u>r</u> dropping only takes place when the *r* comes after a vowel. Use this information to pick those words in the list that may drop their *r* and those words that may not drop their *r*. Tell why the words can or cannot drop the *r*.

Review List

    _____   1. pear
    _____   2. practice
    _____   3. teacher
    _____   4. rich
    _____   5. board

Now we are going to look at the kinds of sounds that may come **AFTER** the *r* in some dialects of English. This pattern goes along with the one you already learned. Let's see if we can figure out the pattern.

Here are some words where the *r* may **NOT** be dropped even when it comes after a vowel.

List A: Words that do NOT drop R

1. bear in the field
2. car over at the house
3. garage
4. caring
5. take four apples
6. pear on the tree
7. far enough

What kinds of sounds come after the *r* in **List A**? Are they vowels or consonants?

In **List B** the *r* MAY be dropped. What kind of sounds come after the *r* in this list?

List B: Words that Drop R

1. bear by the woods
2. car parked by the house
3. parking the bus
4. fearful
5. take four peaches
6. pear by the house
7. far behind

How does this pattern or rule for *r*-dropping work in terms of sounds that come after *r*?

Use your knowledge of the rule for *r*-dropping to pick the *r*'s that may and may not be dropped in the sentence given below.

1. **The   teacher   picked   on   three   students   for   an answer.**
2. **Four cars parked far away from the fair.**

B.   EXAMPLE TWO: A SOUTHERN VOWEL MERGER

A SOUTHERN VOWEL PRONUNCIATION
In some Southern dialects of English, words like ***pin*** and ***pen*** are pronounced the same. Usually, both words are pronounced as ***pin***. This pattern of pronunciation is also found in other words. **List A** has words where the *i* and *e* are pronounced the **SAME** in these dialects.

LIST A: *I* and *E* Pronounced the Same

1. *tin* and *ten*
2. *kin* and *Ken*
3. *Lin* and *Len*
4. *windy* and *Wendy*
5. *sinned* and *send*

Although *i* and *e* in **List A** are pronounced the **SAME**, there are other words where *i* and *e* are pronounced differently. **List B** has word pairs where the vowels are pronounced **DIFFERENTLY**.

LIST B: *I* and *E* Pronounced Differently

1. *lit* and *let*
2. *pick* and *peck*
3. *pig* and *peg*
4. *rip* and *rep*
5. *litter* and *letter*

Is there a pattern that can explain why the words in **List** *A* are pronounced the **SAME** and why the words in **List** *B* are pronounced **DIFFERENTLY**? To answer this question, you have to look at the sounds that are next to the vowels. Look at the sounds that come after the vowel. What sound is found next to the vowel in all of the examples given in **List** *A*?

Use your knowledge of the pronunciation pattern to pick the word pairs in **List** *C* that are pronounced the **SAME** (**S**) and those that are pronounced **DIFFERENTLY** (**D**) in this Southern dialect.

LIST C: Same or Different?

    __   1. *bit* and *bet*
    __   2. *pit* and *pet*
    __   3. *bin* and *Ben*
    __   4. *Nick* and *neck*
    __   5. *din* and *den*

How can you tell where *i* and *e* will be pronounced the same and where they will be pronounced differently?

C. EXAMPLE THREE: A GRAMMATICAL PATTERN IN AFRICAN AMERICAN ENGLISH
A SPECIAL USE FOR *BE*

The form *be* is sometimes found in dialects spoken by African Americans where other dialects use *am*, *is*, or *are*. Some sentences fit with *be* better than others. In the sentences given here, choose one of the sentences in each pair where *be* fits better. Choose only one sentence for each pair. If you're not sure of the answer, simply make your best guess. Put a check next to the answer you think is right.

1.   __ a. They usually be tired when they come home.
     __ b. They be tired right now.

2.   __ a. When we play basketball, she be on my team.
     __ b. The girl in the picture be my sister.

3.   __ a. James be coming to school right now.
     __ b. James always be coming to school.

4.   __ a. Wanda be going to school every day.
     __ b. Wanda be in school today.

5.   __ a. My ankle be broken from the fall.
     __ b. Sometimes my ears be itching.

APPENDIX C: Example of an Exercise with a Socio-Historical Objective: The Development of African American English in Baltimore

Migratory Route Exercise: Have each small group draw lines on a map that shows likely routes for the passage of English from England to West Africa, from West Africa to the West Indies and from Africa to the southern port of Charleston, South Carolina. From this Southern area, then have students draw a likely route to more northern areas such as Baltimore, Maryland. Stress the fact that this route was a typical migratory path rather than one that was followed by all descendants of Africans. Following the exercise, have the small groups share their migratory maps with the class.

The Migration of English through Africa to the United States

On the map given on the next page, draw lines that show the path that English might have travelled through Africa to the West Indies and to the United States. Then draw a line showing how African Americans from the South might have brought English to other parts of the United States. Your group should draw one map on which everyone agrees. Follow these steps in drawing the lines on your map.

1. Draw a line that shows the path that a ship might take from the coast of England to the West African country of Sierre Leone.

2. Draw a line showing the path that a ship might travel going from the West Coast of Africa to the West Indies.

3. Draw a line showing the path that a ship might take from the West Coast of Africa to Charleston, South Carolina, where many Africans were originally taken.

4. Draw a line showing the path that people coming from the West Indies might take to the coast of the United States.

5. Draw a line showing the path that people might travel when they go from a southern state such as South Carolina to a city like Baltimore.

The Sources of African American English
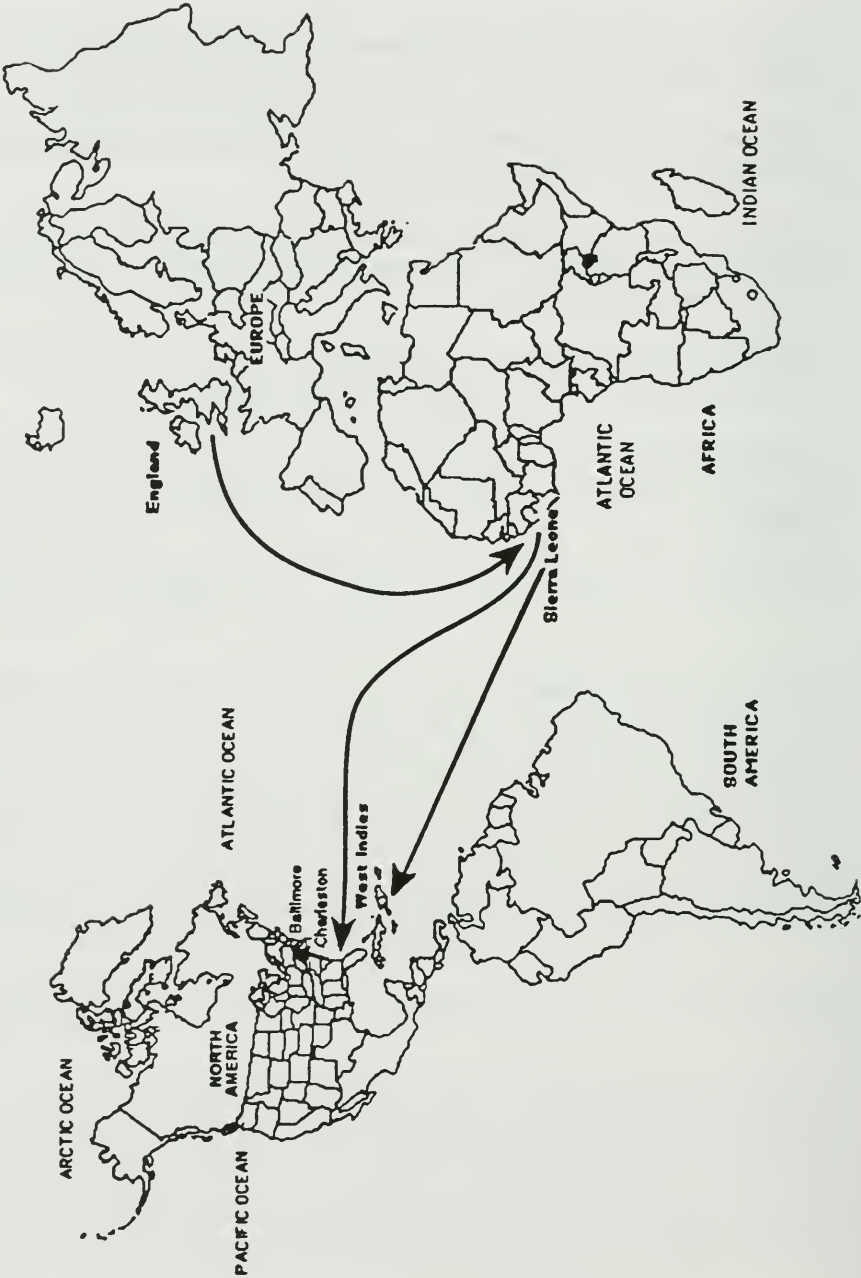
APPENDIX D: Example of an Exercise Promoting Island Quaintness: Definitional Fun Preserving a Lexical Heritage in Ocracoke

AN OCRACOKE IQ TEST
or
HOW TO TELL A DINGBATTER FROM AN OCOCKER*

1. *dingbatter*
   a. baseball player in a small boat
   b. a husband
   c. a wife
   d. an outsider
2. *winard*
   a. a poker-playing wino
   b. moving into the wind
   c. a person who wins a game
   d. a piece of equipment used in crabbing
3. *meehonky*
   a. a call used in hide and seek
   b. a call made to attract ducks
   c. the call of an angry person
   d. an island marsh plant
4. *quamish*
   a. an upset stomach
   b. a fearful feeling
   c. a bad headache
   d. an excited feeling
5. *pizzer*
   a. a small boat
   b. a deck
   c. a porch
   d. a small Italian pie with cheese
6. *mammick* (also spelled *mommuck*)
   a. to imitate someone
   b. to bother someone
   c. to make fun of someone
   d. to become close friends with someone

7. She's *to* the restaurant.
  a. She ate at the restaurant twice.
  b. She's been to the restaurant.
  c. She's at the restaurant.
  d. She's going to the restaurant.

8. *fladget*
  a. gas in the alimentary canal
  b. an island men's game
  c. a small island bird
  d. a small piece of something

9. *puck*
  a. a small disk used in island hockey games
  b. a sweetheart
  c. a kiss on the cheek
  d. a mischievous person

10. *Ococker*
  a. a derogatory term for an Ocracoker
  b. a outsider's mispronunciation of the term Ocracocker
  c. an island term for a native Ocracoker
  d. an island term for bluefish

11. *token of death*
  a. a coin needed for admission to Hades
  b. a sickness leading to death
  c. a fatal epidemic
  d. an unusual event that forecasts a death

12. *louard*
  a. lowering an anchor
  b. an exaggerated exclamation, as in "louard have mercy"
  c. moving away from the wind
  d. a fatty substance

13. *Russian rat*
  a. an island rodent
  b. an island gossip
  c. a vodka-drinking narc
  d. a mink

14.   *Hatterasser*
        a.   a storm that blows in from Hatteras
        b.   a ferry ride from Ocracoke to Hatteras
        c.   a person from Hatteras
        d.   a fishing trip in Hatteras Inlet

15.   *skiff*
        a.   a large boat
        b.   a small boat
        c.   a strong wind
        d.   a light wind

OCRACOKE IQ SCORE

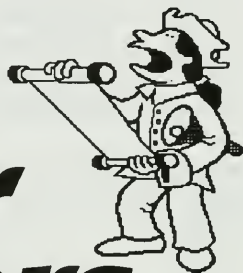|		
0-4	=	a complete dingbatter
5-8	=	an educable dingbatter
9-12	=	an average Ococker
13-15	=	an island genius

*Thanks to James Barrie Gaskill for his corrective input on this test.

North Carolina Language and Life Project
North Carolina State University
March 1993

Answers

1.	d	9.	b
2.	b	10.	c
3.	a	11.	d
4.	a	12.	c
5.	c	13.	a
6.	b	14.	c
7.	c	15.	b
8.	d		

Ethical Dilemmas for the Computational Linguist in the Business World

Heather McCallum-Bayliss
Language Analysis Systems, Inc.

Most applications of computational linguistics take place in commercial settings, where issues of concern to the businessperson may be of less interest to the linguist. Commonly, the linguist struggles with contributing worthwhile linguistic insights and working to meet the commercial ends of the client.

This struggle often emanates from the differing worldviews held by the linguist and the business professional. This contrast is especially noteworthy with projects that involve multiethnic/multicultural/multilingual databases. Predictably, such projects necessitate a heterogeneous view of the data, one that is less amenable to the structure and predictability generally associated with computers. The project that will serve as the basis for most of the discussion in this article deals with the field of onomastics, a field filled with variation. Personal names can vary in many ways: For example, (1) in name structure (Hispanic names have two surnames, the first of which is the "last name;" Brazilian names generally have two surnames, the second of which is the "last name;" many cultures have only one name); (2) socially (names may change on marriage; special markers may be added as social status changes); (3) in predictable spelling variation (Barton and Varton would be considered two different name types in the Anglo naming system; but Bargas and Vargas could be variants of the same name type in the Hispanic naming system); (4) in the character set or writing system used (Spanish uses accents and a tilde, e.g., Cánepa, Muñoz; Chinese, Arabic and Russian have unique writing systems and transliteration issues arise); and (5) in name frequency (Garcia is a highly frequent Hispanic surname; Kim is highly frequent in Korean names).

In the project under discussion, the client needs to retrieve records from a 20-million-record multiethnic/multicultural/multi-lingual database of personal names. The records retrieved from the database should contain the exact name requested or a close approximation to it. The client had found that the existing, essentially Anglo-centric system employed for this task was unreliable and inconsistent in its retrieval of a record with an exact name match, and that it produced intuitively unsatisfactory results when attempting to return records with close approximations to the name requested. The inconsistencies in the retrieval results stemmed both from problems with the nature of the computational algorithm being used and from the failure of the system design to recognize that personal naming systems vary from one cultural, ethnic and linguistic group to another. An Anglo- (or Euro-) centric view of names could not produce adequate results in a multicultural/multiethnic/multilinguistic database.

The role of the linguist in this project was to attempt to make the system more sensitive to the cultural variation inherent in onomastic systems. This role exposed many areas of tension between the goals of the linguist and those of the business client, which led to questions about what constitutes appropriate behavior for the linguist. I will explore six of these areas of conflict and discuss how each may give rise to an ethical dilemma for the linguist:

1. A conflict between the client's desire for confidentiality and the linguist's desire to share linguistic data and research findings with colleagues.
2. A conflict between the business orientation of the client and the theoretical orientation of the linguist.
3. A conflict between established project parameters and the accommodation of linguistic insights within these parameters.
4. A conflict regarding ownership of products that result from application of linguistic insights.
5. A conflict between the client's limited understanding of the linguistic implications of the research and the linguist's responsibility to educate the client and/or user.
6. A conflict between the client's and the linguist's responsibility for the success or failure of the product.

ETHICAL CONSIDERATIONS

Confidentiality vs. Dissemination

Many of the problems encountered in the project cannot be reported directly since the client has asked that the nature of the tasks, the goals of the project, and examples from the database not be divulged. Most of the examples in this discussion, therefore, correspond to data in the project but are not taken from the data directly.

Requests for client confidentiality present the linguist with a predicament. Maintaining confidentiality makes it extremely difficult to share linguistic insights with colleagues. When the material on which linguistic generalizations are based cannot be subjected to public scrutiny, a basic tenet of linguistic research is contravened. However, the linguist is being paid to work on a particular project. What sort of obligation does such payment entail? Does the linguist have to adhere to conditions that impede the advancement of scholarship, or could it be argued that submitting material to the linguistic community does not actually breach a client's confidentiality since it is not in the business setting that the information is being divulged? The linguist must also face the issue of whether or not it is sufficient to provide the linguistic community with examples similar to those found in the database, if the linguistic generalizations are not affected. After all, "concocted" examples have long been used by syntacticians, if they correspond to native speaker intuitions.

The need for confidentiality stems from regulations or industry conventions with which the linguist may not be fully familiar. She must therefore accept and respect the client's knowledge about the consequences of breaching confidentiality. To ensure that some, if not all, aspects of research can be shared with colleagues, she must be certain that she understands the client's notion of confidentiality and that she is able to abide by the restriction it poses. In the present case, most examples correspond to data in the project, but they are not taken from the data directly.

An interesting corollary to the issue of confidentiality was mentioned by a reviewer of an earlier draft of this paper. Does the use of examples parallel to those found in the data breach the intent, if not the letter, of the confidentiality condition? This is an

interesting problem, and one that I believe can be answered relatively straightforwardly. Automatic namesearching is a relatively new undertaking, but the principles involved are for the most part consistent across projects. The linguistic generalizations and representative examples will apply to any project whose database is ethnically/culturally/linguistically diverse. The goals of the projects may vary; the data may vary; the motivations for confidentiality may be different; the systems may have different designs; but the underlying principles of namesearching will be the same. So, use of analogous examples does not violate the client's request for confidentiality, since the generalizations stem from general linguistic research and not from specific examples found in the database. Generalizations based on a specific database may need to be made more generic when they are reported, so as to mask the client's specific purpose.

Another dilemma concerning confidentiality may also arise. How far does the obligation of confidentiality range? What if, once the project begins, the linguist finds that the linguistic knowledge that she is supplying is being utilized in ways that she does not condone. To whom does she owe her allegiance: to the client, who is paying her; or to the public, who she believes has a right to know the nature of the project? One would hope that the linguist would not accept work on a project whose purpose she found morally repugnant. The contract process is likely to provide a sufficient amount of detail about the nature of the project to deter involvement in a project that seems objectionable. However, project aims should be carefully scrutinized during the contracting process.

Business vs. Theory

While the need to be responsive to cultural variation may seem obvious to the linguist, it may not seem relevant to the linguistically naive client. This dichotomy raises the broader conflict between the business orientation of the client and the theoretical orientation of the linguist. She may need to spend a significant amount of time educating the client about relevant linguistic issues and convincing the client that the linguistic generalizations presented are crucial to solving the problem at hand.

In the project under discussion, cultural variation is evidenced orthographically. In the Anglo-American culture, Wiley might be spelling Wilee or Wily or Weiley; or Brown might be

found as Browne or Braun. However, Boland will not be spelled with an initial V (Voland) and be considered a variant of the same surname; it will be a different surname altogether. Hispanic surnames, on the other hand, *do* have surnames in which B and V alternate: Bernal and Vernal. But just as the exchange of B and V will produce different Anglo name types, the substitution of RR for R will produce two distinctive Hispanic surname types (Moro and Morro). (Note that variants with R and RR [Ferris and Feris] in Anglo names produce spelling variants only.) With examples such as these, it becomes quite clear that spelling variants which are peculiar to a specific linguistic system have implications for system design. If a computational system has the mandate to retrieve records that approximate a name submitted, then the system must be made to recognize the linguistic variants that are applicable in a cultural group.

Convincing the client that spelling variation is language-specific may not be difficult; more challenging will be arguing that these linguistic generalizations should be incorporated into the algorithm. While the issue for the linguist is how to include a linguistic generalization, the problem for the client may be one of programming efficiency. The argument could proceed along the following lines.

The client may understand that there are spelling variants in Hispanic surnames that do not exist in Anglo surnames and that the existing system has not been sensitive to these distinctions. However, he may propose that instead of redoing the algorithm completely to incorporate these variations, which would cost time and money, a list of the alternate spellings for the names be incorporated into the system, since computers are especially efficient at comparing items to a list. Each name would be listed separately and the algorithm would be made to proceed as follows: If the surname Sanchez is being sought in the database, the search should also include any name that is spelled Sanches.

While the linguist would concede that computers are good at going through lists, she would have to argue that listing alternate spellings of names introduces problems. First, it misses the linguistic generalization that B and V alternate in Hispanic surnames. Secondly, and more importantly, it presumes that every name variant can be anticipated and put on a list. It would be far more efficient to develop a rule that states that S and Z alternate in particular environments in Hispanic surnames.

At this point, the client and linguist are at somewhat of an impasse. To incorporate the generalization, the computer would have to examine each letter in a name, which would utilize a significant amount of processing time. More problematically, since this spelling rule is language/culture specific, the linguistic generalization presumes that the computer can recognize that a surname is Hispanic. How can the B/V rule be constrained to apply only to Hispanic names and not to the names of other cultures? If other relevant information is available, such as country of birth, it could be utilized to help constrain the rule. Even that information is suspect, however. Countries are not homogeneous cultural groups; many non-Hispanics can be found in predominantly Hispanic countries, and many Hispanics can be found in predominantly non-Hispanic countries.

With these complications, the client may be reluctant to value the linguistic scholarship offered, regarding it as overly theoretical, esoteric and not compatible with commercial ends. He may consider his needs minimally linguistic and more a question of programming efficiency. And he may be disinclined to restructure a system entirely to accommodate a world-view that seemingly can be achieved through programming changes. He may conclude that including linguistic insights would necessitate an entire rethinking of the system design, since a linguistic perspective on a project may cause a different way of viewing and handling the problems encountered. Remodeling the system may lead him to disregard linguistics altogether.

For the linguist, there are questions as well. Since the insights presented about spelling variation would necessitate significant restructuring of the system and a likely increase in processing time, she must weigh whether or not such a change is warranted by the frequency and import of the problem. That is, she must determine how likely it is that spelling variations could occur and how damaging the consequences would be if the less frequent spelling variations were not included. She is faced with the conflict of respecting both the commercial concerns of the client and the accuracy and linguistic adequacy of the system.

Other material concerns may also enter the picture. Time and budgetary considerations and the recent explosion in the volume of electronic data storage may constrain the ability to draw adequate generalizations from the data. The linguist may be forced to compromise the depth of analysis and research in order to meet

market deadlines and to curb the costs of preparatory work. For example, assume that the system is returning multiple examples of inadequate matches, such as:

REQUEST: JORGE LUIS SANCHEZ RODRIGUEZ
RESPONSES: JORGE LUIS SANCHEZ LOPEZ
                      JORGE LUIS SANCHEZ SAAVEDRA
                      JORGE LUIS SANCHEZ BUSTAMANTE

These examples contain non-matching matronymics (the second surname), which makes them unlikely candidates for a match with the name requested. If the addresses of these individuals were available, the system could be designed to examine a reduced number of records based on smaller geo-political entities (e.g., counties, territories). This would certainly accomplish the goal of limiting the number of poor responses, since the number of records examined would be fewer. However, by no means would it address the underlying problem of non-matching matronymics: A solution based on geography merely avoids the crucial linguistic issue.

The inappropriateness of this solution is relatively transparent. Other cases are often less clear cut. Confronted with the need to compromise her analysis to meet a client's deadline, the linguist is then faced with the question of what such compromises do to the adequacy of the analysis and whether or not what she is offering are actual linguistic insights or merely "fix-its" that mask an underlying problem. She must constantly balance the magnitude and import of a problem and its linguistic solution with the impact that the solution will have on the cost of design and speed of operation of the system. She must be sensitive to the client's requirements and the goals of the system. Some issues will be worthy of altering in the system and some will not. The linguist must find the balance among all these considerations. The dilemma for the linguist results from the need to adhere to high standards in solving linguistic issues but at the same time honoring the commercial needs of the client.

Conforming Linguistic Insights to Project Parameters

Consultants may face pre-determined constraints that limit the scope of possible scholarship. For example, the system may have been designed to use a particular programming language.

Certain programming languages perform certain functions better than others: some manage large quantities of data while others are able to manipulate small units or subsets of data; some deal well with natural language while others deal especially well with numbers. The pre-existing conditions that the linguist finds on entering a project can preclude application of the most appropriate and relevant linguistic processes.

For example, if the system can handle only certain sizes of arrays, then comparison of particular types of personal names may be limited. Arabic names, which tend to permit much variation in the number and ordering of name elements, present a problem here. A single name may have the following variants:[1]

ABD RAHMAN MUHAMMAD ABU AL MAJD
MUHAMMAD ABD AL RAHMAN MAJD
MOHAMMAD AL MAJD
MOHAMMAD ABU AL MAJD ABD AL RAHMAN

A system would have to be able to compare virtually any name element with any other name element in order to determine if a match could be found. This process would require an algorithm that could manipulate and compare many elements and store information on the likelihood of a match. If the processing language in use is one that is not capable of such tasks, the responsibility arises of proposing solutions that are less than optimal given the constraints of the software that was chosen before linguistic issues were presented to the client. On the other hand, if the linguist insists on changing the project resources, she may run the risk of having all linguistic information rejected: Some linguistic sensitivity in a project is likely to be far better than none at all.

Issues of Ownership

Because linguistics in the commercial realm is relatively new, it is not uncommon for a project to spawn commercially viable, linguistically based products. To whom do these products belong? If they result from the work performed by linguists and have other linguistic applications, do they belong to the linguists or to the client? If, for example, the computational linguist develops and encodes a namecheck system that can examine and retrieve names from a large multilingual/multicultural database quickly and

accurately, does that system belong exclusively to the client? It could be argued that the client has one goal in mind—to accomplish the task that is his mandate. He may not have the time to produce a marketable product or the interest. If that is the case, then further applications of the product may be in the hands of the linguist to pursue. Such contingencies must be explicitly prepared for when contract negotiations are underway. However, even if the question of ownership of commercially viable products is anticipated, ethical questions about how much of a product belongs to a client can still arise. If a product addresses the needs of the client but is limited in its scope, do all extensions of the product also belong to the client or to the persons who pursue the further research and development of it?

Another question arises in this regard: Is it the linguist's responsibility to educate the client sufficiently to understand the detailed operation and potential applications of a product so that the client could make use of it in other settings? Does a product that can be altered or improved (perhaps generalized) to fit other commercial endeavors still belong to the original employer or to the developer, since it is not *exactly* the same product?

The answers to these questions are not clear. Unquestionably, extraordinary care must be exercised to specify from the beginning what it is that will be done for the client and what the disposition of both planned and unanticipated products is to be.

Educating the Client

Generally, commercial enterprises focus on producing a market-ready product as quickly as possible. Training for use of such products rarely goes beyond operational details and may not include material on what the system is capable of doing or on the application of the product to other existing or new linguistic problems.

Training manuals for a namecheck system must include information on entry format, discussion of error messages, and details on how to manage data in the system, but if they do not include information about the linguistic assumptions that have been made about the names returned, problems are likely to arise. For example, if the user is unfamiliar with Hispanic names, he may be

surprised to find that the following are appropriate results for the name requested:

REQUEST: JOSE LUIS DELACRUZ
RESPONSES: JOSE LUIS DELACRUZ RIOS
                  JOSE DE LA CRUZ RIOS
                  JOSE DELACRUZ

Since it cannot be assumed that every user is familiar with every type of cultural variation in names, a resource manual is crucial to assist the client in understanding what assumptions have been made about names in the system that he is using. In most cases, the scope of a particular namecheck system is limited; due to constraints of time, budget, and purpose, not every possible name variant can be anticipated. Knowing which sorts of variants have been included is therefore helpful to the user. For example, can the user expect to find spelling variants such as Bargas and Vargas, or not? Such information will keep the user from becoming frustrated with the sorts of responses that the system may deliver.

Similarly, the user would need information about name variants that one might try entering if certain types of results are desired. For example, if the name of a married Hispanic woman, Luz Carmen León De García, does not produce the desired responses from the system, it may be that the individual's name is in the system in maiden name form, Luz Carmen León Orozco. It would be possible to try to find a match by reentering the name minus the marriage marker De and married surname, Luz Carmen León . If the user is unfamiliar with the nuances of a culture's personal naming system, then such alternate attempts at a match would not be possible. A training manual would be useful in this regard.

Finally, a manual would need to include information regarding the consequences of inconsistent data entry practices. Although data entry format guidelines may be specified, the motivation behind such guidelines and the consequences of not following the instructions may not be at all clear. If one user among many assumes, for example, that all Hispanic surnames should be "Europeanized" and the patronymic and matronymic surnames should be inverted (Gomez Torres would become Torres Gomez), the crucial surname (patronymic) information would have shifted from one position to another. If the design of the system has not

anticipated such a change, then requests for this name from other users would produce no results. Again, a reference manual would make clear the assumptions about the naming conventions of the various cultures included.

It is clear that training must be a central concern for the linguist. She is offering the client new ways of addressing data management problems and providing new resources for the resolution of these problems by broadening the client's views and assumptions about multicultural/multiethnic/multilingual environments. For the client to extract the full value from the system and to avoid misuse of the system, he must be adequately trained. The linguist has a responsibility to educate the client; it is not sufficient to provide only the linguistic insights that make the project work more efficiently. The scope and definition of the educational effort poses a challenge for the linguist.

Responsibility for Project Success and Failure

If difficulties arise in the operation or function of the product or system being produced (such as system overload), who bears the responsibility for failure? What does such responsibility entail? Several of the examples discussed above involved solutions that would have increased processing time and energy significantly. Such solutions not only affect the cost and time required to produce the system but may have a marked impact on the processing efficiency of the product. If the response time to the user is a crucial issue and the linguistic processing that must be done slows the system or even overloads it, the linguist may have maintained her linguistic integrity but at the cost of interfering with one of the central goals of the project. Is system failure the responsibility of the consultant who introduced more adequate and accurate, yet slower, name matching techniques into the system? Or is it the responsibility of the client, the programmer, or other participant, who may not have provided adequate programming techniques or may have restricted the range of possible linguistic functions through choice of particular programming language, etc.? It seems clear that the linguist would have to bear much of the responsibility for project failure if she were to propose linguistic solutions that would have deleterious effects on the general operation of the

system. She must, therefore, be mindful of the abilities and needs of the client and of the goals of the overall system.

CONCLUSION

It is clear that the computational linguist working in the marketplace frequently encounters the tension between the client's commercial goals and her responsibility to provide adequate, appropriate scholarship. The examples cited above are not exceptional. These difficulties recur frequently and in many different guises, and although the discussion has focused on one project, the issues raised apply to virtually any computational project anchored in the business community.

The conflicts the linguist encounters give rise to three types of responsibility: 1) social responsibility; 2) ethical or moral responsibility; and 3) professional responsibility. She has a social responsibility to educate, to provide enough information to the client so that he will understand the importance of a culturally/ linguistically/ethnically sensitive view of the world and the data. Such information will not only make the project more successful but will make clear the need for linguistic scholarship in the marketplace.

The linguist has ethical or moral responsibilities as well. She may struggle with honoring a client's request for confidentiality and her own misgivings about the nature of the project. Or she may contend with the issue of determining how much of her linguistic knowledge and project expertise is the property of the client. What of this knowledge can she ethically use in other endeavors without obligation to the original client?

Finally, the linguist has a professional responsibility. She must maintain her integrity in providing suitable linguistic insights to the client and must strive to share linguistic generalizations from the project with colleagues. Pre-determined project conditions test the linguist's ability to provide adequate linguistic detail and, as a consequence, limit the insights she may glean from the data. Is there an obligation to provide all the linguistic information that can be identified and, as a result, have abundant insights to share with colleagues, or is there an obligation to contribute only those insights

that will lead to the successful completion of the project, perhaps limiting the value of the conclusions to the field?

Quality control is another professional responsibility. The "scientist" will undoubtedly want to define *quality* as 'accuracy' and 'inclusivity,' but 'consistency' is may be a better term in the commercial domain. Consistent, predictable results promote confidence in the user. The linguist must be dedicated to linguistic principles, to discovering and arguing for those generalizations that are crucial to the definition of the cultural, ethnic, linguistic variation but she must also be able to work within the defined parameters of the commercial project.

The business world demands compromise of the linguist. The compromises must be weighed against the social, ethical and professional responsibilities that she has. Finding the delicate balance between the theoretical and practical is a recurring battle for the linguist in the business world.

NOTES

[1]Thanks to Dr. Karin Ryding for providing these examples of Arabic names.

Heather McCallum-Bayliss is a senior computational linguist with Language Analysis Systems, Inc., of Chantilly, Virginia, a firm specializing in the development of namesearching systems, natural language processing, and computer-assisted language learning. She received a Ph.D. in theoretical linguistics from Georgetown University in 1984. In addition to computational linguistics and computer system design, her work has included language pedagogy, lexicology, and computer-assisted language learning.

Journal of MULTILINGUAL and MULTICULTURAL DEVELOPMENT

Editor **John Edwards**

When in 1980 this journal began under the editorship of Derrick Sharp, it announced a broad multilingual and multicultural mandate. Papers on research, theory, educational systems, teaching/learning strategies and assessment were solicited from a wide geographical range. Now, a dozen years on, it is a widely read and cited journal with a distinguished editorial board and list of authors. Under the new editorship of John Edwards JMMD continues to gain strength, visibility and importance in the field of multilingualism and multiculturalism.

Contents

The Problem of Solutions:
Two Cautionary Cases for Applying
Conversation Analysis to Business[1]

Jeff Connor-Linton
Georgetown University

More and more, linguists are being asked to exploit their knowledge of language structure and use for an increasing variety of "real-life" purposes. This paper presents two cases in which the author's knowledge about conversational structure and meaning was applied to different aspects of business telephone calls. Discussion of these two informal experiments in applying conversation analysis to business focuses a number of ethical and practical issues, including questions of proprietary rights to linguistic knowledge, control of access to that knowledge, and responsibility for its use. More practically, and of theoretical interest, these cases point out an apparent paradox for and potential "Achilles heel" of at least some exploitations of linguistic knowledge: The advantage gained by such knowledge seems to diminish to the extent that it is exploited.

At this stage in my consideration of these issues, my argument consists of anecdotal evidence from two informal case studies, a hypothesis which this evidence suggests, and discussion of some of the implications of that hypothesis. But the hypothesis (although tentative) is worth consideration because, if accurate, it would affect the work and status of applied linguists quite directly.

To date, some, perhaps many, applications of linguistic theory to problems in the real world seem to have fallen short of the hopes of appliers and clients alike (although frequently the hopes and subsequent disappointments of the two groups have differed). Sometimes this is because the theory being applied is—at the time of application—descriptively and/or explanatorily flawed or incomplete. Enthusiastic applications of the early transformational theories of the 1960s to language teaching come to mind.

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Sometimes the fault lies not so much in the theory but in the process of application—for example, due to the appliers' inadequate consideration of the context of application. Some of the attempts to incorporate Black Vernacular English into the curriculum that have met with resistance from African-American parents and educators might serve as an example of this sort of shortcoming.

But in contrast to these cases, in which one assumes that a more descriptively and explanatorily adequate theory or an ethnographically informed approach would improve the results, there appears to be an inherent problem in another kind of application of linguistic knowledge—one which has been motivated by and has sought to address a wide variety of real-life interpersonal problems and needs. These applications consist principally of making non-linguists aware of some aspect of language use or structure—some part of their *own* communicative competence—in order that they may exploit that awareness, either for personal advantage or for "improved communication." Applications of this sort are legion, and range from quasi-linguistic self-improvement texts to well-researched articles and books by linguists whose descriptive or explanatory arguments can be (and often are) interpreted as having a prescriptive message.

THE PARADOX OF DIMINISHING RETURNS

The apparent paradox of at least some of this kind of linguistic application is that the strategic advantage gained by the exploitation of linguistic awareness—specifically conscious awareness of some aspects of the speaker's own communicative competence—may diminish to the extent that it is exploited. If this is in fact the case, then it would seem to solve some of the ethical dilemmas posed by such applications, but at the expense of limiting the applicability of linguistics. That is, to the extent that our application works—especially to the extent that it works to someone's advantage and to someone else's *dis*advantage, applied linguists face possible ethical dilemmas, some of which are raised below. But to the extent that our applications contain within them the seeds of their own undoing, to the extent that the advantage they create diminishes with use, or even backfires, we face a different

kind of ethical question and a threat to the potential of such applications.

The two cases presented below offer anecdotal evidence of the hypothesized "paradox of diminishing returns" and provide a context for a discussion of some of the ethical issues inherent in new linguistic applications.

CONVERSATIONAL STRUCTURE

On a number of occasions, as part of trying to explain to family, friends, and acquaintances what linguistics is and what a linguist does and knows, I've talked about some of the research done by Sacks, Schegloff, and Jefferson (1974) on the conventional structure of conversation and how conversations "mean" more and rely on more information than is propositionally communicated, especially through the conventional structure of adjacency pairs. In particular, some of Schegloff's research (1972; 1979) focuses on the structure of telephone call openings and exemplifies the conventional but subconscious function of adjacency pairs in negotiating identification and conversational roles of interlocutors. I suppose I chose to discuss this piece of research because of its relevance to the lives of the people I've tried to explain linguistics to, its relative simplicity and transparency to non-linguists, and because I feel it exemplifies fairly clearly some of the important theoretical constructs of linguistics—structure, use, systematicity, conventionality, normative behavior, and the notion of meaning as more than just propositional content—although my choice at the time was not so deliberate.

This research pointed out (and here I oversimplify drastically) that the interpretations of meaning that white middle-class Americans must be making and relying on in conversation can be understood if a pair-wise structure of the sort simplified in Figure 1 is posited, and, therefore, that knowledge of this pair-wise structure must be a part of white middle-class Americans' communicative competence. The adjacent status of pair-members is a function of the conditional relevance projected by the first pair part upon the second pair part (that is, the first utterance constrains the possible interpretations and interactional functions which the second utterance may be conventionally understood to have or serve), and

this conventional knowledge is also a part of a white middle-class American's communicative competence.

Figure 1: (Simplified) Prototypical Structure of Tele-phone Call Openings (after Schegloff, 1972)

1A Caller: [RING]

1B Callee: Hello

  2A Caller: Identification of Self/Callee

  2B Callee: Identification of Self

    3A Caller: Phatic Communion

    3B Callee: Phatic Communion

      4A Caller: Reason for Call

    . . .

      According to Schegloff, the first adjacency pair in a typical telephone call opening negotiates interlocutors' availability to talk. The second pair negotiates interlocutors' respective identities (and may, of course, take more than one actual "pair" of utterances). The third pair (which, again, may take more than one actual "pair" of utterances) is devoted to phatic communion ("How are you?" "Fine, How're you doing?" etc.), after which, the caller states the reason for his or her call, under an obligation incurred and presupposed by the caller's initial summons of the callee to the phone.

      As part of the case for the construct of conditional relevance, Schegloff makes the important point that the *absence* of any component of this structure means something; it indexes, constrains, and calls into play particular aspects of the context of talk. For example, the absence of one side of the identification sequence implies familiarity and the absence of any explicit identification implies intimacy. The absence of phatic communion (along with

other contextual information available to the interlocutors) can imply, for example, urgency or frequency of interaction, and so on.

On two occasions, businessmen to whom I have explained this structure have sought to exploit the knowledge which Schegloff made explicit.

Case 1: My friend, whom I'll call Don, is a partner in a small business consulting firm. At any given time, he is most actively working for about six clients, looking for companies for them to buy, or for other companies to buy or finance his clients' businesses. His clients frequently call him with a question or suggestion, but mainly, he says, "to have their hands held." One evening he was complaining about how much of his day was "wasted" holding his clients' hands. He then challenged me to prove the relevance of the field of linguistics to the real world by providing a solution to his problem: Minimizing the number or length of these kinds of calls from clients while still making them feel that he was working hard enough for them. I responded by telling him about the pair-wise structure of telephone call openings and, more or less off the top of my head, suggesting the following modification of that structure in order to assume control over these kinds of phone calls. (I've reconstructed my suggestion below to capture its tone.)

"In a normal call that you answered yourself, you would go through the normal sequence of identification and 'How are yous' that would place your caller in the position and under the obligation to explain his purpose for calling, letting him set the agenda of the call. However, you have a secretary who answers your phone. Your secretary puts the client who's calling on hold, buzzes through to you on the intercom to tell you that Bill Smith is on Line 2, and you take the call. The intervening participation of your secretary presents you with an opportunity to preempt control of the call.

"Both you and your client already know who you're talking to; identification has already been taken care of. When you take the call, you have to speak first in order for the caller to know you're on the line—and this is your chance. Rather than begin with phatic talk which would lead to your client's explanation of why he called, take a moment before picking up the phone to think of what you've done on the client's account recently or some question that you 'need' to ask him, and begin with that. For example, 'Hi Bill, I'm glad you

called. We just finished . . .' or 'Hi Bill, your timing is great. I needed to ask you . . .'.

"There are several messages sent by this 'violation' of normal phone call opening structure and 'etiquette.' First, it says to your client that you're thinking about him, that he was on the tip of your mind. At the same time, the violation of the normal phone call opening sequence communicates an air of urgency to your information or question for the client, implying that the client and your work for him are important to you. This will go a long way toward repaying him for the loss or delay of the 'How are yous' that you skipped. Second, it lets you set the agenda and take care of some of your business before the client asks his 'What have you done for me lately?' question—while at the same time demonstrating exactly what you have done for him lately. Later in the phone call, once you've settled your own agenda and communicated the importance of your client to you, you can ask him what he called about and do some phatic communion."

For several months Don used this strategy quite frequently and, he thought, to excellent effect. He even kept a set of three-by-five cards by his phone which he updated regularly with a status report and questions for each client. He thought it made him sound busy—but on the client's behalf—and made these kinds of calls more efficient for him. He even reported to me an interesting side effect of the strategy: Because his clients often just wanted to be reassured that Don was thinking about them and his preemption had already answered this question, when he disingenuously "corrected himself" ("Oh, sorry Bill, what were you calling about?"), they often fell back on a phatic excuse, which frequently included a social invitation. This, in turn, Don said, enhanced his personal relationship with his clients; he said he had never received so many invitations to parties, ski weekends, and the like. Clients knew they were supposed to have a reason for calling, and once that reason was preempted, an invitation or some other personal agenda was the excuse they often fell back on.

However, after a few months, Don started to curtail his use of this phone strategy. He intuitively realized that such a strategy only works if it is the exception, not the norm. He felt that to preempt his clients' phone call agendas all the time would either make them angry, make him seem strange or rude, or at least become what they expected from him and so lose its implicative potential. Fortunately, Don realized the potential "downside" of the

strategy before it began to hurt his business. Don intuited what I, as a linguist, should have known: The meaning of the marked choice lies (in large part) in its relative infrequency compared to the unmarked choice. So, to generalize, my advice was of most value the less frequently it was used. And the more frequently it was used, the more likely it became that it would lose its efficacy, or worse, backfire and send inappropriate, negatively evaluated messages.

Case 2: I also told another friend of mine (call him Rob) about phone call opening structure; just the descriptive facts—no strategy, no overt advice. (Rob owns a company which manufactures valves of some sort for jet engines.) A year later Rob took me out to dinner and told me that on the strength of my "advice" (his word) he had invested in a phone voice mail and data entry/retrieval system for his company. This is the kind of system being used by more and more companies and government agencies: Recorded messages tell you to push 1 for this kind of information, push 2 for something else, enter your account number to retrieve certain kinds of information, etc. In Rob's case, his clients' purchasing agents could access all sorts of information about their accounts, payments and balances, shipping dates, and so on—all without talking to a human being. He enthusiastically explained that his sales personnel were now freed from much of the time-consuming job of socializing and account maintenance with purchasing agents. They were able to devote their new-found free time to "cold calls" to prospective new clients and were thereby increasing his sales volume. He even said that he thought I could get as much as $500 per person with a well-marketed seminar for business people which offered this information and more of its kind! He also mentioned that this argument for phone data retrieval systems had not been made to him by the phone company.

I told my friend that I was concerned because while it may be efficient in one sense to cut out the social functions of conversation, especially between a salesperson and a purchasing agent with a preexisting personal relationship (built up over months or years of phatic communion in the course of phone calls), I worried about what would happen when the identity of salesperson or purchasing agent changed and a personal relationship no longer existed. For example, what effect would the new phone system have on account maintenance when the client wasn't confident that

behind the phone data system there was a real person who could be trusted if there was a serious problem? My friend acknowledged my concern, but had already paid thousands of dollars for his new phone system.

To make a long story short, he recently called to tell me that his phone data system was getting less and less use because his sales force, responding to clients' complaints *and their own needs* to "be in touch" with clients, had begun to circumvent it precisely to maintain a personal relationship with their clients. The length of account maintenance calls was back up, and the number of cold calls had decreased correspondingly.

In summary, these two cases suggest that at least some stable conventions of language use reassert themselves after intervention, that the unmarked/marked normative relation tends to seek its own level. The exploitation of linguistic awareness seems to have provided only short-term gains, with a significant downside potential (in business parlance). Furthermore, this sort of strategic use of language can seemingly work only as a secret; the more widely known the strategy, the more ambiguous and suspect the message inferable from its use. (This, it seems to me, is the downfall of many strategies espoused in, for example, popular assertiveness training seminars and books; if I suspect that your assertive behavior is a conscious strategy, I may doubt the sincerity of that behavior—and even whether you are really an assertive person.)

My purpose in describing these cases is not to claim discovery of a new application of conversation analysis, nor even discovery of a problem for that application. In fact, the day after I presented a talk on this subject I was shown a story entitled "Voice mail taps wrath of callers" on the front page of *USA Today*'s Money section, which gave several examples of "a growing disenchantment with the technology," which is used by "[a]bout 85% of *Fortune 500* companies and 2 million smaller companies." The story presents a number of complaints made about voice mail and ends with the opinion of a receptionist that "I can make or break sales that come into this company by speaking directly to the people that call, by trying to console them . . . I don't think a machine can do that. It's a very cold way of dealing with people" (*USA Today*, March 2, 1992). My intent is to offer a hypothesis—the paradox of diminishing returns—which may explain these kinds of problems,

and raise some of the ethical and theoretical issues which these data suggest.

ETHICAL IMPLICATIONS

These informal cases present a number of ethical questions, a few of which I will raise without presuming to answer, hoping to spark discussion, not settle it.

First, how can linguists avoid the use of linguistic knowledge about everyday interaction for ends of which we don't approve? *Can* we constrain applications in this way (since, for example, we cannot reliably anticipate all possible future uses)? Consider the possibility of criminals studying linguistic defenses to criminal conspiracy charges in order to discover how to maintain the necessary ambiguity in their conspiratorial negotiations. I am not suggesting that we should not try to apply linguistics to various kinds of social problems or needs; one of the values of and justifications for science is, I believe, the technological advances it can enable. In fact, the question of control of applications is often a moot point since, as in the cases described above, the products of our research are in the public domain and can be used by other linguists or non-linguists according to their own motivations and understanding of that research.

Second, if linguists *are* willing for linguistic knowledge to be used for the personal advantage of one speaker or group of speakers in relation to others, how do we decide, on a principled basis, to whom we give this knowledge? To right historical inequities? To level a particular social, economic or political playing field? Even if we are guided by some ethical, social or political motivation to apply some aspect of our knowledge to a particular social, economic or political problem, we face the further question of which participant(s) in that problem area to offer that knowledge to. For example, Gumperz (e.g., 1982) most directly addressed his work on cross-cultural miscommunication, or "crosstalk," between native and nonnative speakers of British English to the native speakers, in part because of their position as the dominant group and their role as gatekeepers in British society, on the explicit belief that native speakers' understanding of native-nonnative differences in communicative norms would minimize native speakers' negative

evaluations of nonnative speakers on the basis of their communicative behavior. But the altruism of all members of any group cannot be relied on, and some might exploit their newfound knowledge for purposes in direct conflict with the scientist's intentions (as demonstrated, for example, by Ryan, 1976).

Related to the question of who we should inform is the question of whether we even have the right to decide who should get this knowledge, especially since the kind of knowledge I'm talking about is communicative competence, which is *already* something the speaker "owns" and uses, albeit presumably in a less than conscious way. Linguistics is different from physics (and similar to, for example, psychology) in that while a clearer understanding of the nature of gravity is unlikely to cause any but the most self-conscious of laypersons to stumble, a clearer understanding of *only a part* of one's own communicative competence may cause a speaker to change her communicative behavior in ways that may have consequences which are unforeseen (and perhaps unforeseeable) by the layperson or the linguist. This is especially likely because of the interdependence of all aspects of the communicative system (intra- and interpersonal). The research on crosstalk mentioned above raises further ethical questions since it makes available to speakers not only knowledge about their own communicative competence but knowledge about the communicative competence of others which may be exploited for one speaker's or group's advantage and to the disadvantage of another speaker or group. In general, if, how, and where the line between the goals of personal advantage and of improved communication can be drawn raises its own questions of ethical relevance.

Third, once a linguist has decided to offer a particular application to some person or persons, who is responsible for the consequences (especially any negative consequences) of that application? What "prerequisites" of other relevant or necessary knowledge must be required to ensure correct or effective application? We frequently require our students to learn some linguistic constructs in order to understand others; is this less necessary for non-linguists? If so, then presumably the linguist has designed the application in such a way as to obviate the necessity of that otherwise prerequisite knowledge for the application's target population and purpose. But how can this be done? In anticipation of unforeseen consequences (which are nearly certain given our incomplete understanding of language and its use), what kind of

warnings or disclaimers should the linguist offer? Or are we to follow the rule of the marketplace: *Caveat emptor*?

Of course, in those cases, if any, where the hypothesis of the paradox of diminishing returns proves accurate (i.e., that the advantage gained by the exploitation of at least some linguistic awareness diminishes as it is exploited), then to some extent these ethical dilemmas are eventually resolved for us by the language's natural system of checks and balances, but at the expense of the applicability or practical value of this kind of linguistic knowledge.

THEORETICAL IMPLICATIONS

If the hypothesis of the paradox of diminishing returns is supported by empirical evidence beyond the anecdotes I have offered here, we face some interesting and potentially important theoretical questions. There exist numerous natural conventions of language use in the real world which work to the advantage of some speakers and to the disadvantage of others and that do *not* seem to diminish with frequency of use (e.g., the whole range of ways in which various uses of language exert the dominance of one speaker over another and serve to maintain historical power relations between groups of speakers). First, how do these natural language use strategies differ from artificial strategies of the kind described above? For example, the artificial strategies discussed above are marked in terms of relative frequency of use, whereas the markedness of many natural language use strategies relates to the social identity of the speaker. Investigation of these differences may contribute to our understanding of different kinds of markedness and their relations to processes of dominance and power. Second, how do natural strategies maintain their efficacy, in apparent contrast to artificial strategies? Would the efficacy be mitigated if the linguistic mechanisms by which they structurally and contextually index and enact power relations were exposed, especially to those who are dominated (in part) through these strategies (as seems to be the case with artificial strategies)? For example, heightened awareness of gendered language forms and structures has institutionalized explicit consideration of the gender roles and relations which language indexes. Finally, perhaps even these more stable, natural language use strategies share with their artificial

counterparts what my friend Don called a cost-benefit ratio, and if so, investigation of these costs and benefits will help us to understand more clearly the bidirectional nature of the negotiation of conversational and social power.

Finally, the preceding discussion offers a new perspective on the value of considering ethical issues in applying linguistics. Often in science, ethical considerations are viewed as a constraint on research design which can even render some questions unanswerable. The preceding discussion suggests that ethical considerations, in addition to their costs to linguistic research and applications, can also produce benefits, leading linguists to ask new questions about language and even suggesting new ways of answering them.

NOTES

[1] An earlier version of this paper was presented at the annual meeting of the American Association for Applied Linguistics, Seattle, Washington, 1992.

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Jeffrey Connor-Linton is an Assistant Professor of Linguistics at Georgetown University. He received his Ph.D. in Linguistics from the University of Southern California in 1989. His research interests include cross-cultural (mis)communication, indexicality, pedagogical uses of discourse analysis, and nonnative writing.

Ethical Issues for Applying Linguistics: Afterword

Braj B. Kachru
University of Illinois at Urbana-Champaign

In his plenary address at the 1993 annual meeting of the American Association for Applied Linguistics at which these papers were presented, one of the leaders of applied linguistics in the USA, Richard Tucker, presented in his usual energetic and scholarly way a very informative overview of the current state of applied linguistics in North America. In his concluding remarks, Tucker observed that applied linguists are, among other things, ethical people. It is not often that the word "ethics" comes up in deliberations on applied linguistics and its practitioners. Tucker's comment thus sets the tone for this colloquium: It is a sign of the maturity of the field that issues of ethics and applied linguistics have received some attention in recent years.[1] However, the jury is still out and no final verdict is available.

This special issue, then, on "Ethical Issues for Applying Linguistics" reflects, in a serious sense, a new phase in the linguistic sciences. The professionals in the field have just begun to engage publicly in self-evaluation, a practice which is frequently adopted by a number of sister disciplines—anthropology, political science, and sociology, to name just three.

By the nature of their job, linguists have an eagle eye for linguistic dissection and analysis, but at the same time they demonstrate ostrich-like attitudes in the following two ways: first, in the way they view the applications and effects of the linguistic sciences on the public; and second, in the way they generally overlook—at least in print—the ethical implications of various endeavors in which the profession is involved. The first issue relates to social *relevance,* and the second to social *responsibility*.

It was only a generation ago, in 1964, during the Structuralist phase, that six architects of our discipline conceded that "a fair portion of highly educated laymen see in linguistics the great enemy of all they hold dear."[2] These six gurus, Charles Ferguson, Morris Halle, Eric Hamp, Archibald Hill, Thomas Sebeok, and William Moulton, have in one role or another been our teachers. And now, a generation later, one might ask: Has the situation changed during the past thirty years? Have linguists seriously worked to demonstrate the relevance of their discipline?

Sixteen years after the above observation, the venerable Bolinger (1980: 1) lamented that:

> In language there are no licensed practitioners, but the woods are full of midwives, herbalists, colonic irrigationists, bone setters and general-purpose witch doctors—some abysmally ignorant, others with a rich fund of practical knowledge—whom one shall lump together and call SHAMANS.

In the 1960s, and earlier, the debate on ethical issues in applying linguistics primarily focused on prescriptivism, usage, and standardization. Consider, for example, the controversies about *Webster's Third New International Dictionary of the English Language, Unabridged,* and other usage volumes.

However, during the past three decades, within the new paradigms of the linguistic sciences, we find articulation of theoretical and methodological approaches which are redefining applied linguistics, its foundations, scope, and concerns. The approaches I have specifically in mind are those of J. R. Firth, M. A. K. Halliday, and William Labov, again to name just three.[3] The concerns of applied linguists, if we perpetuate the dichotomy between applied and theoretical, have moved beyond linguistic form and its function. These concerns now rightly include issues of power, ideology, and control.

The two recent studies discussing these topics—and directly relevant to our profession—are those of Phillipson (1992) and Tollefson (1991).[4] They raise refreshing and stimulating questions about linguistic power—the power to define, and the power to control—and they relate these issues specifically to various dimensions of applied linguistics. The ethical questions now being articulated have become especially meaningful in the present context,

when there is overwhelming hegemony of one language across cultures, when there is domination of Western research paradigms in the non-Western world, and when agendas for research are primarily outlined and set in the West. This situation is essentially a consequence of inequalities in education and in resources.

The Phillipson and Tollefson volumes have appeared at just the right time. These studies provide stimuli for self-evaluation and reflection. And they have relevance to some of the traditional concerns of applied linguists: program development, language planning, and curriculum development. But these books do more than that; they also help us to address issues related to the role of professional organizations, and the channels of communication used by the leaders of such organizations (e.g., journals, newsletters, conferences, and conventions).

What I have said above provides a backdrop against which one sees the significance of the eight papers in this volume. The papers reveal, to quote Marlowe, "the outward signs of inward fires." Marlowe, of course, had in mind a different context, but the late Peter Strevens often used this quote to characterize the state of applied linguistics. Those of us who knew Peter will recall his deep-rooted concern for the ethical issues in our profession.

Jeff Connor-Linton and Carolyn Temple Adger deserve our gratitude for bringing together scholars who have addressed vital issues for deliberation, both in terms of larger professional concerns and in terms of specific professional specializations: They raise issues about which they are passionately concerned, and these issues are well articulated in the introduction and prologue. The major question they ask the contributors is, "what are the ethical issues for applying linguistics in your particular subfield?" And, "to this end, the contributors have offered stories of their own experience. . . " In a nutshell, that is the story of this volume, and it is that "experience" which gives this volume authenticity and a human link. It is in that sense, then, that it opens what has been largely "a private dialogue to public participation" (p. 170). That, of course, is an admirable achievement of the volume.

We have two types of papers. One set specifically demonstrates the appropriateness of socially relevant models of linguistics in, for example, forensic linguistics (Edward Finegan), and clinical applications (Heidi Hamilton); and the second set raises ethical questions in applied linguistic research in computational linguistics (Heather MacCallum-Bayliss), language testing (Charles

Stansfield), and in language awareness programs (Walt Wolfram). The issues which these writers address do, of course, overlap.

ETHICS AS AN ELUSIVE TERM

In focusing on this theme, the problem is, as has rightly been pointed out by Charles Stansfield, that the term "ethical" is extremely elusive. What is considered an ethical action by one person or group may actually be viewed as suppression, control, or hegemony by another person or group. Linguists do not have to look too far for such situations. One sees this conflict of ethics in language imposition, language in proselytization, language standardization, language in education, and so on.

A good example of this situation is the imposition of language for "enlightenment" and supposedly ethically defensible motives during the colonial period in India and other colonies. It was believed that "the true curse of darkness is the introduction of light." And as a consequence, another "ethical" step was taken in claiming that "the Hindoos err, because they are ignorant and their errors have never fairly been laid before them." Therefore, a remedy had to be found for "their disorders." What was the remedy? " [T]he communication of our light and knowledge to them . . ." (Grant, 1831-1832, pp. 60-66).

In President McKinley's view, there was an ethical compulsion concerning the Philippines. McKinley believed that

> [T]here was nothing else for us to do but to take them all, and to educate the Filipinos, and uplift and civilize and Christianize them, and by God's grace do the very best we could by them, as our fellowmen for whom Christ also died. (Cited in Mazrui 1975, p. 201)

In both cases, *ethical* positions are adopted for the other-worldly reward.

It is this elusiveness of the term that results in ethical dilemmas. Several professions, as mentioned above, have partially resolved these issues in the following ways: by developing professional codes of conduct, by occasionally re-evaluating the direction of the profession and ethical issues in research and

teaching, and by providing guidelines for their practitioners. One would have thought that language-related professional societies would have followed the same direction. After all, as members of social networks, as members of a speech community, as parents and teachers, and as learners and professionals, what touches us more than language? The reasons for the lack of such debate in applied linguistics cannot be assigned to mere negligence or indifference toward the ethical issues. The reasons are perhaps deeper, and subtler. These issues relate to power and control, and to economic interest. Some of these reasons have been discussed in, for example, Kachru (1986) and Phillipson (1992)(cf. also Dissanayake 1992 and a symposium on Phillipson's *Linguistic Imperialism* in *World Englishes*, *12*(3), 1993).

ISSUES OF BROADER CONTEXT

And now, let me return to the papers. I would like to discuss their contributions within the broader contexts of the discipline and beyond the concerns of ethnocentric and Western contexts. I believe that the issues raised in the papers are crucial for our understanding of functional approaches to linguistics and their relevance to social concerns. It seems to me that almost all the papers emphasize that language study and linguistic theory cannot be divorced from the social context. This is a good beginning and makes my assigned job easier.

This emphasis in the papers is consistent with the on-going debate on the questions of linguistic theory and social relevance. In other words, on the applications of linguistic theory. Labov has been in the forefront of this debate in the USA (e.g., see Labov, 1988). The following two observations (Labov, 1988, pp. 181-182) present his position:

> (a)   We are, of course, interested in theories of the greatest generality. But are these theories the end-product of linguistic activity? Do we gather facts to serve the theory, or do we create theories to resolve questions about the real world? I would challenge the common understanding of our academic linguistics that we are in the business of producing theories: that

linguistic theories are our major product. I find such a notion utterly wrong.

(b)   General theory is useful, and the more general the theory the more useful it is, just as any tool is more useful if it can be used for more jobs. But it is still the application of the theory that determines its value. . . .

Wolfram's earlier work is a testimony to such social concern (see, e.g., Wolfram, 1977; and later).   In his current paper, Wolfram revisits the issues of structures in dialect variation in language awareness programs. He demonstrates, very well indeed, how sociolinguistics can be used as a resource discipline, and he rightly points out that for "educational equity," the "American educational system should assume responsibility for replacing the entrenched mythology" about language differences with factual information (p. 229). Wolfram also draws our attention to the gate-keeping and authoritative roles which schools play in our society. One could add a string—in fact a long string—of institutions and professions to the one focused on by Wolfram, which should feel an incumbent moral obligation to address humanistic, scientific, and cultural objectives.

In my view, McCallum-Bayliss has almost identical concerns about the fast-expanding field of computational linguistics. The six areas of conflict she addresses reveal conflict in responsibility. An especially relevant issue here is the projection of an "Anglo (or Euro) -centric view" without sensitivity to culture variation. This leads, as she points out, to an unsatisfactory result in using "a multicultural/multiethnic/multilingual data base."   She has demonstrated this point specifically in the use of computers in an onomastics project.   This takes us to "culture bias" in one's research. The questions McCallum-Bayliss raises have wider and deeper implications—the concerns about the "observer's paradox." In applications of linguistics, very little attention has been paid to this concern.

One immediately thinks of another area where computers may become a nightmare: The use of corpus linguistics as a gatekeeper for prescriptivism, norm-imposition, and the "sanctity" of the data banks. In a way, this has already started to happen.

In her clinical application, Hamilton very lucidly discusses the application of interactional sociolinguistics to "interactions between

clinicians and patients which can have potentially important consequences for the patient's well-being" (p. 207). What these clinicians need is a framework and methodology such as that proposed by Hymes,[5] for they ". . . are faced with having to determine what 'normal' turn-taking behavior is, what 'normal' topical development is, what 'normal' eye gaze is, and so forth." (p. 218). These are not merely ethical issues; these are fundamental issues of determining which theoretical framework one can use in a specific area of research. One also has to choose a methodology with appropriate delicacy in analysis.

Finegan's paper deals with an aspect of forensic linguistics, specifically with ethical considerations of expert witnessing. The legal dimensions of language use have attracted considerable attention from linguists in recent years, for example, the language of law, and language use in the courts (for references, see, e.g., Levi, 1982 and Shuy, 1993). The dilemma of expert witnesses is that they are given access to significantly less of the story than the jury, and what they get comes only from the partisan advocates who pay them. If it ever happens at all, it must be extraordinarily rare for experts to know for certain that they are retained by an innocent party. Expert linguists seem too easily "inclined to view themselves as working not *on behalf of justice* but *on the side of justice* and against injustice" (his emphasis, p. 184). But, then, Finegan hastens to add that "this view is naive, and it risks being unethical. The safest ethical stance for an expert to take . . . is one of skepticism" (p. 184). A laudable conclusion indeed. As an aside, one might add that linguists would serve their profession well if this skepticism is extended to other linguistic undertakings—the profession is generally attacked for its dogmatism.

It is not always the case that "solutions" which linguists provide are without ethical problems: In fact the perceived linguistic cure may result in other complex maladies. There are cases which point out, as Connor-Linton skillfully shows, "an apparent paradox for and potential 'Achilles heel' of at least some exploitations of linguistic knowledge" (p. 271). In his paper, ethical and practical issues are related to conversational structure and its function in business telephone calls. Connor-Linton signals "caution" by recognizing the limitations of applied-theory, both from the "appliers'" points of view and that of "clients." The causes for frustration are due to "flawed" or "incomplete" application,

inadequate knowledge of contexts of applications, and descriptive statements with a prescriptive message.

There are situations when applied-theory may work to the advantage of one group and to the disadvantage of another group. The result is a dilemma for an "applier" (that is if he/she evaluates the ethical implications). This dilemma has serious theoretical and applied implications in ". . . the whole range of ways in which various uses of language exert the dominance of one speaker over another and serve to maintain historical power relations between groups of speakers" (p. 281).

And it is in this way that *dominance* touches us all as parents, educators, policy makers, and members of a society (see, e.g., Kachru 1986 and 1990; Kramarae, Schulz & O'Barr eds. 1984; Phillipson 1992).

INTERNATIONALIZING THE ISSUES

In *applied* research, another vital concern is that of internationalizing what is essentially a national vision, a culturally biased vision, or a paradigm imposition. One field that has come under criticism is that of language testing. Stansfield does not address these concerns directly, thus missing a challenging opportunity to face them. I am thinking of the types of issues concerning language tests, specifically for proficiency in English, raised by Lowenberg (1992, p. 108) and Davidson (1993). Lowenberg raises a basic question related to "standards" and "norms":

> In identifying these norms, most researchers in testing appear to assume implicitly that the benchmark for proficiency in English around the world should be the norms accepted and used by "native speakers" of English. (p. 108)

The validity of this assumption on the part of researchers in testing can be challenged on many counts. Lowenberg's (1992) paper and Davidson's (1993) symposium have discussed these vital questions in detail, so I shall not discuss them here.

The next issue relates to the power of dominant groups to define other groups with ethnocentric labels and ill-defined terminology. In the case of English around the world, I am not sure that dichotomies such as "native vs. non-native" are sociolinguistically meaningful. One also has to reconsider the traditional definitions of a "speech community" when referring to world Englishes (cf. Kachru, 1988).

We must, therefore, ask questions about the validity and appropriateness of paradigms and methodologies of research. Again, these questions have been vigorously debated, for example, in anthropology and sociology. But there is barely a whisper about such concerns in the linguistic profession. The papers in this volume address some of these important concerns, either directly or indirectly.

And finally, there is the question of the control of the various types of channels, including professional organizations, professional journals, and other means for disseminating ideas, not always related to scholarship and academic excellence.

WHERE DO WE GO FROM HERE?

This excellent smorgasbord of papers has helped us ask a variety of questions—those of ethics in theory, method, attitude, and professional organizations. And each paper suggests caution about the "solution" to a language problem—caution that is sobering, and pragmatically warranted. We know that raising insightful and provocative questions is difficult, and that answering such questions is a learning experience. We can, of course, deliberate on these questions from various perspectives. However, it would be more productive if an ensuing discussion focused on the issues of ethics in applied linguistics in a cross-cultural and international perspective. After all, applied linguistics as a discipline goes far beyond the confines of one language and one culture.

Future deliberations on this topic might center around three questions: First, the ethical issues raised by these presentations with reference to theory, methodology, and implementation; second, culture-specificity and ethnocentricism in applied linguistic research and in textbooks which are used to teach courses in applied linguistics; and third, where do we go from here? One might ask,

for example, "Is there a need to study and discuss resources for teaching and research in applied linguistics in relation to the points raised above (e.g., textbooks and research guides for applied linguistics)? Is there a need to evaluate theories from the perspective of their social relevance (see, e.g., Sridhar, 1990)? And, is there a need to form an on-going committee to outline an agenda for such ethical issues and to discuss these on a regular basis?

I have asked more questions than I have answered. I have used these papers as a basis for pointing out that applied linguistics has yet to answer or debate some very fundamental questions.[6]

That much about the broader issues. These papers can also be used as an excellent pedagogical resource in courses in application of the linguistic sciences, and the implications of such research. I used these papers as a springboard for discussion on this topic in "real-life" contexts in my two courses, one on World Englishes and the other on Language in the USA. These papers served as refreshing material for stimulating discussion and further exploration. One cannot say that about most of the pedagogical resources available for teaching applied linguistics and the implications of such research.

NOTES

[1] See, e.g., Kachru, (1992).

[2] See *Report of the Commission on the Humanities,* American Council of Learned Societies, 1964. Quoted by Edward Finegan (1973) in his review of *Attitudes to English Usage,* by W. H. Mittins *et al.* in *Language* , *49*(4), 939.

[3] See, e.g., the following for further discussion, Halliday (1978), Kachru (1981), Labov (1988). See also Benson, Cummings & Greaves, eds., (1988).

[4] See also a symposium on power, politics, and English (1993) in *World Englishes*, *12*(2)., Guest Editor, Wimal Dissanayake; and a (1993) symposium on Phillipson (1992) in *World Englishes*, *12*(3). The symposium on Phillipson includes five perspectives on his book and his own response.

[5] For an excellent introduction to Hymes's approach, see Saville-Troike (1982).

[6] I have discussed some of these questions in detail in my plenary presentation at the American Association for Applied Linguistics, Seattle, 1992.

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Does Conceptualization Equal Explanation in SLA?

Cheryl Fantuzzi
University of California, Los Angeles

In the last issue of *IAL,* Shirai and Yap responded to my critique (December, 1992) of Shirai's (June, 1992) article on connectionism and language transfer. In their reply, Shirai and Yap characterized my paper as generally "questioning the merits of the connectionist paradigm," and stated that, in addition to critiquing Shirai's discussion of connectionism and transfer, my goal was to "present the weaknesses of connectionism in general" (p. 120). Dismissing my critique of Shirai's discussion of connectionism and transfer as a misinterpretation of Shirai's purpose, they focussed their reply on my "general criticisms" of connectionism and argued for the usefulness of the "connectionist framework" for developing "a general theory of second language acquisition." "What is needed on all sides," they wrote, "is a spirit of openness that is conducive to scientific inquiry (p. 125)." However, since it was never my aim to attack connectionist research, Shirai and Yap's defense of connectionism as a general "conceptual framework" for SLA was a moot argument. My critique was not aimed at "connectionism in general," but at Shirai's *particular claims* for connectionism, and especially his claim for a *connectionist explanation of language transfer*. The purpose of my article was to take a closer look at some of the issues involved in making such a claim, and at the models that Shirai used to support his argument. Although Shirai and Yap contend that my criticisms of Shirai's paper were based on a misunderstanding of his purpose, I do not believe that I "missed the point" of Shirai's argument; rather, I *disagree* that *vague and general statements* (connectionist or otherwise) offer elegant and unifying "theoretical explanations" of SLA phenomena. Since I too believe that our field stands to benefit from a clear discussion of the possibilities and limitations of connectionist research, I will

continue this exchange by attempting to clarify what I perceive to be at issue in this discussion. I will also contrast Shirai and Yap's "defense of connectionism" with Seidenberg's (in press) own reply to McCloskey's (1991) critical comments on his model.

From my perspective, this exchange is not a debate about "connectionism versus symbolism" or about the general "merits" of connectionist research. It is about Shirai's claim for a connectionist explanation of language transfer, and it is also about theorizing in SLA. I disagree with Shirai and Yap's characterization of connectionism as a "rational epistemology" that may solve the proliferation of "too much empirical data" and "too many theories" in SLA, and with the notion that vague theoretical explanations of "messy" cognition are "elegant" and "the only possible result" for connectionist systems. I also disagree with Shirai and Yap's statement that "(a)t the *general conceptual level,* connectionism can *explain* a wide range of phenomena" in SLA (p.126, emphasis mine).

My previous paper pointed out some problems with Shirai's claim that connectionism could "effectively explain" transfer in SLA and raised the general issue of explanation versus implementation in connectionist modeling. One of my stated goals was to consider what a connectionist explanation of cognitive functioning meant, taking a closer and more critical look at existing models than Shirai had provided. This was not done to *attack* connectionism, but to bring some of the issues into better focus. Clark (1990), who I cited extensively in that section, argues that the connectionist "inversion" of traditional explanations (that is, explanation built bottom-up from a working model) has certain *advantages* over traditional approaches. That was not the issue for me. My point was that it is too soon to say whether connectionism can offer a truly explanatory account of SLA phenomena, and the models that Shirai cited could not handle the particular transfer phenomena that he outlined. I also took issue with his presentation of connectionism as a "paradigm shift" in cognitive science[1] and his claim that connectionist models give us a glimpse into the "black box" of language processing.[2] I argued that *Shirai's claims* for connectionism—explanation of transfer in SLA, paradigm shift, and neural plausibility—were not supported by *his discussion* of various models.[3]

I also pointed out that Shirai's reference to a generic "connectionist framework" was too vague, and that by ignoring how actual models worked he sidestepped important issues. Shirai and Yap say that I "wrongly assumed that Shirai was making some very concrete and specific (i.e., microstructural) claims regarding connectionism and transfer" (p.121), and that my critique was based on the mistaken assumption that his discussion was "at the level of instantiation/implementation." However, my critique was just the opposite: I stated that while it is still an open question whether connectionism can address issues in SLA, *possible answers could only be contained in specific models,* and Shirai's purported explanation of transfer was too broad and vague. The real source of our disagreement appears to lie in the role that we assign to connectionist models in connectionist theorizing. Shirai and Yap explicitly promote "speculative theorizing" that may perhaps later be formalized by computer simulation (pp. 127-128), while I argued that "(a)rm-chair speculating on the future capability of [connectionist] models, as Shirai does, certainly will not explain issues in SLA," and that "a clearer discussion of theory, explanation and of the *underlying assumptions and actual capabilities of existing models* must be present in any discussion of the applicability of [connectionism] to SLA research" (p. 330, emphasis mine). I believe that discussion of connectionist implementations is integral to connectionist explanations, as I will elaborate below.

Shirai and Yap also emphasize that Shirai's discussion was not aimed at the "implementational level" but at the "conceptual level," but the sharp distinction that they draw between a conceptual and an implementational "level" is not clear. What seems to most clearly distinguish connectionist models from classical models is that the level of implementation *is* the level of explanation (Fodor & Pylyshyn, 1988). I agree that problems with particular implementations do not necessarily call the entire "connectionist conceptualization" into question (MacWhinney & Leinbach, 1990); however, the implementation and analysis of connectionist models are still fundamental to connectionist explanations. My critique was that Shirai's discussion of connectionism was *so general* and *disembodied from implementations* that it encompassed *all kinds of models*, connectionist, non-connectionist or hybrid. The "global theoretical framework" that Shirai and Yap present is really just cognitive science, and they have not made clear what *connectionism* can add to second language research.

A discussion of the applicability of connectionist models to SLA research is by no means an easy task, and Shirai and Yap must be commended for their attempt to bring connectionism to the general attention of SLA researchers. However, I felt that Shirai (1992) went beyond this goal and made much stronger claims, and this was the focus of my critique. Shirai stated that his purpose was to "comprehensively discuss the conditions under which L1 transfer tends to occur and to *explain* these conditions in terms of the connectionist framework" and to "argue that *the connectionist framework explains L1 transfer effectively*" (p. 91, emphasis mine). He stated that "this paper will argue [that] the connectionist approach may provide *new and more sophisticated interpretations of language transfer* as well as *new insights into the role of contrastive analysis in predicting language transfer"* (p. 93, emphasis mine) and that it will "attempt to *explain the mechanisms* of language transfer using the connectionist framework" (p. 97, emphasis mine). Shirai suggested that connectionism may help to clear up "*the confusion created when universals in acquisition were over-emphasized"* (p.112, emphasis mine), and that "the connectionist framework, as presented in this paper, may contribute further to the *specification of L1 transfer:* which factors condition transfer and the role transfer plays in second language processing and acquisition" (p. 113, emphasis mine). My critique was that Shirai made some strong claims for connectionism without adequately backing them up.

Shirai and Yap continue to make strong claims in their reply.[4] In a discussion of the role of connectionism in theory construction in SLA, they say that connectionism can explain a wide range of phenomena at a general conceptual level. They view connectionism as a "rational epistemology" which provides a small number of theoretical constructs that can "integrate" and "make sense of" a wide range of data. A rational epistemology, they say, allows theories to "emerge as inventions, products of cognition rather than empirical observation" (p. 126), and "vague statements at the general conceptual level" may later be "formalized/quantified" through network simulations (p. 127), but at this early stage of theory construction what is needed are "general conceptual statements." It seems odd, however, to think of connectionism as a rational epistemology, considering the importance of simulations for connectionist modelers and, as I will discuss below, I think that Shirai and Yap have the role of connectionist modelling in connectionist theory-construction backwards. I do not agree that

vague statements at the "general conceptual level" offer a unifying or elegant "explanation" of SLA data, nor that vagueness is the best that we can expect from connectionist research, at this stage or any other. That connectionism may provide us with "vague explanations" hardly seems to be a sound argument in *defense* of its usefulness in developing theories of SLA, and that is certainly not how Seidenberg (in press) defends his own model (to be discussed below).

VAGUE THEORIES VERSUS
THEORIES OF VAGUE PHENOMENA

In my previous paper, I briefly discussed McCloskey's (1991) argument that connectionism provides us with vague statements about cognitive functioning rather than explicit theories, and that connectionist models might be best viewed as "animal models" that may help to develop theories of human cognition. Shirai and Yap respond that "vagueness" is all that we can expect from connectionist models such as Seidenberg and McClelland's (1989), since some phenomena, such as sound-spelling correspondences, cannot be precisely predicted: "For such systems that cannot be handled by rules...the only possible result is something vague" (p. 122). They say that once we realize that human cognition is essentially "vague and messy," we may need to change our notion of explanation: "To always expect precision may be misguided... theoretical explanations can be 'vague' (in the sense that they make general statements rather than precise descriptions/ explanation) if they offer attractive advantages such as elegance, consistency and 'making senseness'" (p. 123). Vagueness is consistent with Shirai's aim to provide a "global framework" that simply includes everything, since vagueness is compatible with everything. However, as I discussed in my previous article, the job of *theoretical explanation* is not that easy, and perhaps especially difficult for a connectionist modeler. As Boden (1988) suggests,

> task analysis is needed for theories of learning, whether connectionist or not. To explain how systems learn to do *x,* we must understand what counts as *x*-ing and what it is necessary to be able to

do in order to be able to do *x*. There is no painless
road to the explanation of learning. (p. 224)

McCloskey (1991) argues that rather than explicit theories of
cognitive functions, many of the theoretical proposals made by
connectionists are just general statements such as "representations
are distributed and similar words have similar representations."
Even though the details of a *network's* functioning may be explicit,
this does not necessarily provide an explicit theory of *cognitive*
functioning because many times the model's designer cannot say
what knowledge is represented in the network, just how it is
encoded or processed, which aspects of the network's function are
crucial or irrelevant to its performance, and so on. In the more
radical models, the modeler "grows" the network by relying on
sophisticated learning algorithms for building complex nonlinear
systems that are difficult to analyze. McCloskey argues that
mimicking a cognitive function does not mean that the modeler has
an explicit theory of that function, just as a gardener who grows a
plant from a seed does not necessarily have a theory of plant
physiology. This is not true for symbolic models, since a traditional
cognitive modeler builds the model from an existing theory. The
traditional modeler "must build in each of the crucial features of an
independently specified theory. If the theory is not explicitly
formulated, the simulation cannot be built" (p. 391).

Shirai and Yap's argument is that since most of cognition is
"vague and messy," we may have to settle for vagueness in our
"descriptions/explanations" of cognition (the slashed term is theirs).
However, they confuse vague theories with theories of vague
phenomena. While "messy" phenomena may not be captured well
by categorical rules, it does not mean that our theories of these
phenomena must be vague. It is possible, at the very least, to have a
symbolic theory of semi-regular patterns or of metaphor
implemented in a connectionist architecture; symbolic theories can
easily be implemented in constraint-satisfaction networks (Pinker,
1987; Fodor & Pylyshyn, 1988). Athough Shirai and Yap suggest
that proposing "soft laws" to capture irregular patterns is a
"paradigm shift" away from generative linguistics, Marcus,
Brinkmann, Clahsen, Wiese, Woest and Pinker (1993) point out
that many generative linguists have proposed these sort of "soft
laws" to capture the semi-regular patterns of the irregular past tense
in English (Jackendoff, 1975; Aronoff, 1976; Lieber, 1980;

Perlmutter, 1988; Spencer, 1990), and "soft laws" are perfectly compatible with symbolic theories.[5] Vague theoretical explanations are certainly not the only possible *nor the most desirable* result for connectionist systems.

Shirai and Yap equate McCloskey's (1991) argument that connectionist proposals are vague with my argument that Shirai's statements are vague, but this is not the same argument at all. Shirai's argument is vague because although he champions a connectionist alternative to symbolic modelling, he does not offer a substantive discussion of any issue or of any model. He purposely aims his discussion at a vague "conceptual" level, distinct from connectionist implementations. McCloskey (1991), on the other hand, provides a coherent argument for why connectionist proposals are vague statements and not explicit theories of cognitive functioning.

VAGUE PROPOSALS VERSUS EXPLICIT THEORIES

McCloskey (1991) gives these guidelines of what a theory of cognitive functioning should include: 1) the theory should organize data in such a way as to allow generalizations to be stated (e.g., because sound-spelling correspondences are accomplished in a certain way, certain variables will affect performance and others will not); 2) the theory should support clear credit-blame assignment (which factors are responsible for correct predictions and which for incorrect predictions); 3) the theory should provide a basis for discerning its differences and similarities from other theories in the field. McCloskey argues that because a connectionist model is simply grown from a learning algorithm and is very difficult to analyze, its designer cannot say just which aspects of the model's structure and functioning are responsible for its performance or are irrelevant to it. They can only make very general statements such as representations are distributed and processing is accomplished by the spread of activation throughout the network. McCloskey uses Seidenberg and McClelland's (1989) model of word recognition and naming to illustrate the difficulties in claiming that the fully distributed models provide a theory of cognitive functions: Seidenberg and McClelland cannot say what idiosyncracies and regularities are captured by the network and how the network

represents the information, which details of the simulation are relevant or irrelevant to its behavior, or just how it differs from other models, since the models are too complex to analyze.

Interestingly, Seidenberg (in press) accepts the criteria named by McCloskey as the criteria needed for a theory of *descriptive adequacy* (Chomsky, 1965), but argues that symbolic models and connectionist models are in the same boat when it comes to descriptive adequacy: both simulate cognitive behavior but neither one explains it.   To McCloskey's criteria for descriptive adequacy, Seidenberg adds other criteria, which allows for a theory of *explanatory adequacy*: 4) the theory must explain phenomena in terms of independently-motivated principles; 5) the theory shows how phenomena previously thought to be unrelated actually derive from a common underlying source.   In other words, rather than merely implementing and simulating existing domain-specific theories in computer models, an explanatory theory provides a small and independent set of explanatory principles that can explain a wide range of data, and Seidenberg believes that connectionism can contribute to such a theory. [6]

We are familiar with such principles and constraints from current linguistic theory. Seidenberg argues that connectionism may also provide explanatory principles. However, he states that "given the present state of our understanding, *these principles are largely concerned with the properties of artificial neural networks*" (p. 8, emphasis mine), and "it isn't by any means clear yet whether connectionism provides an adequate set of principles" as it relies on the "analysis of [connectionist] systems—for example, *determining what kinds of problems can and cannot be solved by neural networks of a given size and type*—[which] proceeds slowly" (p. 22, footnote 4, emphasis mine). Seidenberg illustrates his argument with connectionist models of aphasia, which, to my mind, it is not that different from McCloskey's suggestion that connectionist models may provide "animal models" of cognitive functioning that may lead to theories of human cognition. While McCloskey notes that connectionist models allow manipulations that human subjects do not and may be simpler and easier to analyze, and therefore help to develop theories of the human system, Seidenberg says that it is hoped that the theoretical principles gleaned from the properties of connectionist systems will eventually "evolve into the relevant neurophysiological ones."

Whether McCloskey's and Seidenberg's views can be reconciled is not the central issue here. The point that I wish to emphasize is Seidenberg's argument that connectionist principles derive from the *computational* properties of connectionist models, which he likens to the constraints on the very general principle of *move-alpha* in linguistic theory. These constraints are an essential part of the theory. No one would seriously characterize Government and Binding (GB) Theory simply as *move-alpha* (i.e., *move anything anywhere),* but Shirai and Yap's characterization of connectionist "theory" as "a small number of theoretical constructs such as nodes, activation, connections and hidden units" is just that general. Theoretical constructs such as NP, lexical root or X-bar structure are only a small part of linguistic theory. The strength of the GB/Minimalist framework is that it makes precise predictions that can be tested, not that it is vaguely "compatible" with everything. If we build a connectionist machine that mimics a behavior but we do not know how it has done so, have we explained it? Don't we already *know* that the brain is a connectionist "black box?" The question of how much artificial neural networks are like *real brains* cannot be answered by speculation.

As I stated in my previous paper, what connectionism may contribute to a theory of cognition is still an open question, but the *analysis of connectionist implementations* is certainly not of marginal relevance to this question: it is central to it. The claim that a connectionist theory/framework offers explanations/conceptualizations at the level of description/explanation is simply *too vague* to be useful for constructing theories of SLA. Although Shirai and Yap characterize connectionist theory-building as "speculative theorizing" at a "conceptual level," which may then be "formalized" through network simulations, I believe that they have the relationship backwards. Connectionist *implementations* are clearly integral to *theory construction for connectionists.* Symbolic models may start out with a theory, but the theory must be *precisely* specified in order to be implemented. Whichever way one chooses to approach *explanation*, it requires much more than the general *conceptualization* of models, and this was the crux of my critique of Shirai's paper.

MORE MODELS, BUT NOT MORE EXPLANATION

Shirai and Yap mention some more connectionist models in their article but, like Shirai's (1992) cursory description of connectionism and transfer, the discussion offers little substance. In response to Shirai's claim that connectionism could *effectively explain* such high-level language phenomena as discourse/pragmatic knowledge, sociolinguistic context, learning environment, level of proficiency, markedness, age, attention and monitoring *a s conditions on transfer,* I pointed out Gasser's (1990) comment that connectionist models could not yet model such things as "stages" in learning, environmental factors and monitoring. Again, my point was not that connectionist models will *never* handle all of these phenomena *in principle,* but that *Shirai's particular claims for connectionist explanation of language transfer* were premature. However, by shifting the focus away from my critique of Shirai's discussion of transfer to a general "debate" about connectionism, Shirai and Yap avoid addressing the criticisms that I raised about Shirai's claims and simply introduce a new topic: a connectionist model of "stage-like" acquisition. Shirai and Yap reply that Elman's (1991) model captures "stage-like" incremental learning, noting that it is "not clear" that stages exist in human learning.

In Seidenberg's terms, Elman's model appears to be a model of descriptive adequacy, attempting to simulate the observation that children do not learn their language all at once and that they begin with a limited memory capacity. The model will probably exhibit the problems and limitations of any descriptive model, but Shirai and Yap do not concern themselves with problems or possible solutions. "The most important finding" in their view is that the simulation demonstrated "the importance of simple input at the early stages of development. . . . If children have a learning capacity comparable to a connectionist network, which is very likely, they can learn complex sentences successfully if given simple input at the beginning" (p. 124). The question, however, is not if children have a learning capacity *comparable* to a connectionist model, but *how comparable*? How much like human beings are connectionist models? What do they tell us about human learning?

Shirai and Yap provide *no analysis of the input, of the model, or of human behavior*. They simply note that the model "simulated environmental change by manipulating the input" (p.

123), but what is the nature of structures given to the network and how similar are they to the types of structured input that children get? Is the language that the network learns a possible human language? How successful a language learner is the network and how well does its behavior match actual human behavior? What does the model actually *predict* about human learning, other than that children do not learn their language all at once? and so on. Just the fact that connectionist models *exist* tells us very little. There is of course no clear evidence that "simple" input facilitates language acquisition in children, and suggestive evidence that it does not. The relation of input to language learning is a thorny issue in language acquisition research that can not be so easily answered or brushed aside.

Shirai and Yap also say that the model suggests that children "probably create a prototype based on simple input and generalize it to more complex/varied situations" (p. 124). Again, there is no discussion of *how* this is so. The notion of "prototype" is compatible with both symbolic and connectionist models, but there is the deeper question of whether and how prototype can explain linguistic phenomena, and which phenomena. When Rumelhart and McClelland's (1986) past tense acquisition model simulated a U-shaped learning curve, it also raised many questions that stimulated further discussion and research, such as: How psychologically real is the model (Lachter & Bever, 1988)? How well does it match the quantitative data of human development (Marcus, Pinker, Ullman, Hollander, Rosen & Xu, 1992)? Again, my point is that connectionist models need to be critically evaluated in order to understand *what* they do and *why* if they are to be of benefit to language acquisition research. Speculation about the possible capabilities of connectionist models on a general "conceptual" level does not explain SLA phenomena.

THE "SYMBOLIC" SIDE OF THE COIN

Let's approach this question from another angle, that of the symbolic "camp." Part of the work of an explanatory theory is to predict and explain what does *not* occur. Pinker and Prince (1988) raised many interesting problems for Rumelhart and McClelland's (1986) past tense model, which stimulated further research in this

area in both the symbolic and the connectionist circles. For example, why doesn't a person always apply the more frequent irregular past form to a new verb such as **Clinton landslid to victory,* on analogy with *The land slid* or *I hand-wrote the letter* (not *handwrited)?* Many people prefer *Clinton landslided to victory in the elections,* suggesting that they have a default rule that applies regular past tense to denominal verbs (Kim, Pinker, Prince and Prasada, 1992; Fantuzzi, 1993). The theoretical questions involve whether there are distinct lexical entries for words and whether people represent linguistic symbols such as 'noun' and 'verb' and have a categorical rule of 'affix' attachment. Also, are there distinct psychological mechanisms for representing rule-governed and rote-learned items? Some have suggested, for example Bybee (1991), that speakers might not represent regular past tense in English as a categorical rule but as a "schema" as in some connectionist models.[7]

Marcus, Brinkmann, Clahsen, Wiese, Woest and Pinker (1993) and Clahsen, Rothweiler, Woest and Marcus (1992) and others have pointed out that to test between the two hypotheses one needs a phenomenon that, unlike the regular past tense inflection in English, is both a default rule and infrequent in the input. Denominal verbs in English and German noun pluralization appear to provide us with a way to test the theories. My own experiment with native and non-native speakers of English (Fantuzzi, 1993), replicating Kim, Pinker, Prince and Prasada's (1992) studies with adult and child native speakers of English, found that both groups tended to regularize denominal verbs but not metaphorical verbs *(Federal agents ringed the compound /Gunshots rang throughout the night),* despite the infrequency of denominal verbs that are homophonous with irregular verbs in English. Even though second language learners should be doubly disposed to use frequent irregular forms due to explicit ESL instruction, they also tended to regularize denominal rather than semantically extended verbs, which points to the psychological representation of such constructs as noun and verb roots and a productive rule of affix attachment.

Another example is noun pluralization in German. Although it is highly irregular, Marcus et al (1993) list many contexts which suggest that *-s* is a "default" plural affix, although *-n* is more frequent: *-s* is the only affix that can appear in any morphophonological environment and *-s* occurs on names that are homophonous with nouns *(Manns),* onomatopoeic nouns

(Kuckucks), quoted nouns, nouns based on other grammatical categories such as conjunctions or verb phrases, truncations and acronyms, etc. (see Marcus et al. for discussion). Clahsen et al. (1992) provide empirical evidence for a correlation in children's speech between plural overregularization and its omission in compounds, similar to Gordon's (1985) finding that English-speaking children will accept *mice-eater* and *rat-eater* but not **rats-eater.* These studies of course provide support for a "dual route" model whereby irregular forms are stored in the lexicon and regular forms are created from a productive rule of affixation, as opposed to a single undifferentiated pattern-associating network.

Pinker and Prince (1988) proposed that verbs undergoing *irregular* past tense alternations in English need not be generated by a specific rule (for example, a rule such as Lowering Ablaut in the *sing/sang* alternation), but may be captured by a pattern associator such as Rumelhart and McClelland's (1986). This does not preclude the existence of "hard laws" as well, since the human mind is also able to override prototypes based on clusters of similar exemplars in memory (as in the *landslided* example). Pinker and Prince pointed out that the phonological connectionist model would still need to be embedded in a larger model with components for morphological, syntactic and semantic representations. A model of past tense acquisition must not only associate phonological past forms with their stems, but must also be able to represent the different argument structures of lexical items *(The ball flew out of his hand/The batter flied out to center field),* to apply a default regular rule to "denominal" verbs, to choose the correct morphological form for certain syntactic structures: *If I won a million dollars tomorrow . . .* and so on. They noted that the phonological model might thus be embedded in a collection of networks that reproduces the traditional account of linguistic modularity. Far from being a "paradigm shift", this suggests how connectionist models might be integrated with more traditional approaches.

Shirai and Yap, however, continue to insist that connectionism constitutes a *paradigm shift,* and even cite Pinker and Prince's "new approach" to morphology—rules for regular past and associative and rote memory for irregulars—as evidence. Shirai and Yap should be more careful with this term, since it is vague and has strong connotations. For Shirai and Yap, a paradigm shift appears to be just a "major change" in thinking, but research *generally*

progresses by changes in thinking. A paradigm shift, in contrast, is often understood to be a radical overthrow and supplantation of a previous paradigm (Kuhn, 1970). If Shirai does not associate himself with "radical eliminativism," he might avoid using the term "paradigm shift."[8] Even the commentators he cites explicitly warn against polarization of the two approaches (Schneider, 1988, p. 52; Clark, 1989, p. 83).

I pointed out in my previous article that connectionists working with complex problems of language often incorporate symbols into their architectures (e.g., Hinton, 1991). This could very well be the case with some of the models that Shirai and Yap cite as well, since what they mean by "connectionism" is not defined. We might settle this particular "debate" if we both agree that language is a complex and multi-faceted phenomenon and not handled completely by either "soft" or "hard" laws![9] My own position is similar to Pinker's, who has often commented that his criticisms are not against connectionism *per se,* but against *currently unsubstantiated* claims that language can be represented in a single pattern associating network without *any* representation of traditional linguistic symbols or operations at all (see Marcus et al, 1993).

CONCLUSION

As Seidenberg (in press) points out, the relationship between explanatory theories and computational models is "one of the hoariest issues in cognitive psychology" (p. 3), whether the computer simulation is connectionist or not. While most connectionists view connectionism as potentially contributing to a theory of general principles of cognition, they usually also admit, as Seidenberg does, that "we are not very far down the long road to the creation of wholly explanatory theories within this framework" (p. 14). While the analysis of connectionist systems is difficult and proceeds slowly, careful analyses of specific implementations, such as Pinker and Prince's critique of Rumelhart and McClelland's model, are valuable for stimulating further research. Shirai and Yap, however, argue for a more "qualitative" or conceptual approach, and state that "(b)ased on this speculative theorizing, we can then start actual network simulations to see whether our qualitative theoretical statements can actually be formalized/

quantified (p. 128)." There is a lot of work to be done between the vague idea and the formalization. Instead of arm-chair speculation about the future capability of models, it seems to me that SLA researchers who are truly interested in the applicability of connectionism to issues in SLA need to do some empirical research at this point. What Shirai and Yap offer is neither explanation nor theory, but only speculation at a very general level.

Much of the success of Chomsky's attack on behaviorism had to do with the specificity and testability of the theory of generative grammar. If connectionism is to have an impact on SLA research, I believe that it will need to do more than offer a vague and general framework for "making sense" of varied phenomena. Just as critical analysis of Chomsky's ideas fueled the rise of generative linguistics, it seems to me that the implementation and critical analysis of connectionist models, and not vague conceptualizations, are what is needed for its continued development. Most emphatically, I believe that general conceptualizations are *not* explanations of linguistic behavior, and that second language theorists must *not* be satisfied with vagueness in their explanations and theories. I do not agree that vagueness offers "elegance, consistency and 'making senseness'" or that vagueness has anything to do with connectionist theory-building at all.

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NOTES

[1] The term "paradigm shift" is indeed vague, and thus part of our disagreement may be a confusion of terms. My critique concerned the strong use of the term, which suggests a radical change in research paradigms so that the new "paradigm" completely supplants the old, such as, for example, when generative grammar replaced behaviorist approaches to explaining linguistic behavior. Shirai (1992) in fact prominently presented connectionism as a "paradigm shift" comparable to the "Chomskyan Revolution" (p. 92). Many commentators, including myself, view the symbolism/connectionism dichotomy as creating an unnecessary polarization between the two approaches. Boden (1988), for example, discusses why symbolism and connectionism may not be separate paradigms so much as "feuding

cousins" within the same "family" of computational modelling. If Shirai and Yap do not view connectionism as a radical paradigm shift, then there is no disagreement between us. I stated in my article that I think both connectionist and symbolic models are useful for studying cognitive processing and that I view a polarization between the two approaches as divisive and unhelpful. I also stated that, in my opinion, connectionist models will probably never completely replace higher-level explanations, because I see a place for different levels of analysis, as Fodor and Pylyshyn (1988) argue.

2 In defense of my criticism of Shirai's claims for the neural plausibility of connectionist models, Shirai and Yap state that at least connectionism strives for neural plausibility while traditional approaches to cognitive modelling "disregard" it and consider it "unimportant." This is incorrect, and simply trivializes the issues about cognitive architecture. As Feldman and Ballard (1982) put it, "The distributed nature of information processing in the brain is not a new discovery. The traditional view (which we shared) is that conventional computers and languages were Turing universal and *could be made to simulate* any parallelism (or analog values) which might be required" (p. 206, emphasis mine). They go on to say that "Most cognitive scientists believe that the brain appears to be massively parallel and that such structures can compute special functions very well. But massively parallel structures do not seem usable for general purpose computing and there is not nearly as much knowledge of *how to construct and analyze such models.* The common belief (which may well be right) is that there are *one or more intermediate levels of computational organization layered on the neuronal structure and that theories of intelligent behavior should be described in terms of these higher-level languages* ...We have not yet seen a reduction (interpreter if you will) of any higher fomalism which has plausible resource requirements, and this is a problem well worth pursuing" (p. 210, emphasis mine). Fodor and Pylyshyn (1988) present an in-depth discussion of the issue of levels of explanation in cognitive theory and the need for a "symbolic" level of representation. They certainly do not consider neural plausibility "unimportant" to theories of cognition. Indeed, they state that "understanding both psychological principles *and* the way they are neurophysiologically implemented is much better (and, indeed, more empirically secure) than only understanding one or the other. That is not at issue. *The question is whether there is anything to be gained by designing "brain style" models that are uncommitted about how the models map onto brains...the degree of relationship between facts at different levels of organization of a system is an empirical matter"* (p.62, emphasis mine).

3 Although Shirai and Yap state that I "claimed" that "language involves higher-level functions which cannot be handled by connectionism" (p. 121), what I actually said was that "I disagree that connectionism can *as yet* explain *the high-level transfer phenomena that Shirai outlines in his article* " (p. 320, italics added). For example, Shirai used Munro's model of visual development to argue for a connectionist explanation of age-related effects on language transfer, and I pointed out that *if* this model could be applied to language acquisition it might correspond to phoneme recognition and not the higher-level transfer phenomena that Shirai outlined, since Munro explicitly said that his model involved only the earliest stages of processing. I also noted that Shirai might have paid more attention to Gasser's (1990) connectionist model of transfer in his discussion, which is a very simple model of language transfer and, again, cannot handle the sorts of high-level transfer phenomena that Shirai outlined. My point was not that Shirai's very general claims

were "incompatible" with Gasser's model, but that SLA researchers could benefit from a more in-depth discussion of an *actual model of language transfer* and of the theoretical issues that it raises. As a second language researcher who is interested in the applicablity of the models to SLA research, I would like to see more than vague speculation about non-existent models, and this was the source of my criticism of Shirai's discussion of transfer.

⁴ Their explicit fusion of the terms *explanation/conceptualization* and *theory/framework* continue to make the claims vague, however.

⁵ Fodor and Pylyshyn (1988: 57-58) state that "the notion that 'soft' constraints can vary continuously (as degree of activation does), are incompatible with Classical rule-based symbolic systems is another example of the failure to keep the psychological (or symbol-processing) and the implementational level separate. One can have a Classical rule system in which the decision concerning which rule will fire resides in the functional architecture and depends on varying magnitudes." Fodor and Pylyshyn argue that connectionism may be viewed as a theory of how (Classsical) cognitive systems can be implemented in "abstract neural" architecture.

⁶ Even if we agreed, for argument's sake, that connectionism can provide an explanatory account of cognition, this does not necessarily mean that it will replace symbolic theories, as there are many competing theories in existence. Seidenberg notes that "the major differences between the approaches is that whereas Chomsky's principle claims concern types of knowledge representations and constraints thought specific to language, connectionists have focused on general mechanisms thought to apply across domains. In a complicated world, of course, *both could be correct"* (p. 22, footnote 3, emphasis mine).

⁷ By categorical rule, I do not mean that speakers *always attach* the regular past tense morpheme to novel denominal verbs, only that speakers represent a categorical rule of affix attachment as well as linguistic categories of noun and verb. It is accepted that some extraneous factors may come into play in grammaticality judgements, not the least of which is the tendency for many people to be "prescriptively correct" and say *Clinton landslid to victory*. The connectionist model predicts that denominal verbs that are homophonous with irregular verbs will *never* be regularized, or at least not more often than merely semantically extended verbs. This prediction was not supported by my data. (See Kim et al., 1991, for discussion.)

⁸ As I noted in my previous article, Shirai's passing mention of hybrid models in the last footnote of his article sharply contrasts with the prominent place he gives to a paradigm shift. While "paradigm shift" is a vague term, it does have strong connotations of a radical overthrow of the previous paradigm, and the general tone of Shirai's paper was skewed toward that interpretation. Although Shirai and Yap focus on my "claim" that Shirai is a radical connectionist, my critique was not actually against Shirai as a radical connectionist, or even against radical connectionism; it was about Shirai's *general, unsubstantiated claims* about connectionism and transfer. Shirai's claims are so vague that they may well be "compatible" with everything. I stated that "many critics of conventional AI as a model of human cognition see connectionism as a more neurally plausible glimpse into the "black box", and Shirai is clearly a proponent of this position. However, ... [he] *merely points to a vague connectionist framework to support this point of view*

(p. 325). This was the actual point I was making, and amply supported throughout my paper.

      9 Shirai and Yap make reference to a symbolic/connectionist debate, and characterize this exchange as part of that debate, but the issues of that "debate" are not clear. I hope that I have clarified in this reply that I do *not* consider this exchange to be part of a general connectionist/symbolic debate, and that my critique concerned Shirai's claim for a "connectionist explanation" of language transfer and *not* connectionist research in general. Hopefully, though, this exchange has also touched on some general issues that may provide more insight into both the "possibilities and limitations" of connectionist research for theories of SLA.

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Cheryl Fantuzzi is a doctoral student in applied linguistics at UCLA, specializing in second language acquisition. Her special interests include research in cognitive science and developmental psycholinguistics.

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